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ORIGINAL ARTICLES.

THE VALUE OF INSPECTION IN THE STUDY OF DISEASES OF CHILDREN.*

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IN our efforts to reach a higher grade of scientific knowledge in medicine, which is undoubtedly the all pervading sentiment of the profession at this end of the nineteenth century, it may be well to pause in our enthusiastic pursuit after more precise methods, and give heed and due thought to the value of facts of a simpler character, which, gathered from the observations of a long line of worthy ancestors in medicine, have been handed down from generation to generation, until withstanding the test of time, have been stamped with the seal of authority.

After all that can be said and done for the advancement of medical study, we must, in my humble judgment, rely in a large measure upon the influence of sound common sense or rational judgment for the successful practice of our calling. It is for this reason therefore, that I have thought the subject of *inspection* as an element of physical examination, especially as applied to the study of the diseases of children, is one that will bear dwelling upon with much profit, particularly to the younger physician.

Until now far too little stress has been laid upon the *value* of inspection by pediatricians, and it is for this reason chiefly that I believe its true merit should be emphasized in the strongest manner possible. Ballantyne, in his recent book, entitled "Introduction to the Diseases of Infancy," has the distinguished merit of properly valuing the importance of inspection in the study of pediatrics, more than any other authority I know of. To an experienced physician, inspection alone may occasionally enable him to make a diagnosis, but it should never be depended upon by either young or old without the aid of further physical examination. The temptation to the busy practitioner of making "snap diagnoses" is often very great, but he should be on his guard, and always bear in mind the story of the student and the horse-saddle.

Superficial inspection, I am sorry to say, is often made the basis of a diagnosis in children, and errors from such practice are more likely to arise, even though physical examination is resorted to later on, than from no attention being paid to inspection at all.

In order to perform inspection of an infant or child properly, the patient should be entirely stripped of all clothing. This requires time and patience it is true, but should be made an inviolable rule of practice, especially with infants. If the child is very ill, a comfortably warm room should be used. It is quite true that all cases in children do not require undressing in order to make a diagnosis, but until experience satisfies one of his expert abilities, it is better to follow the rule than to neglect it. In older children, acutely ill, entire exposure of the body at once is not necessary; one portion at a time, as the thorax for example, can be inspected.

A cardinal point in estimating the value of inspection, is to take nothing for granted, and above all, the mother's or nurse's explanation of phenomena. Always accept signs furnished by inspection as *guides* only, to be followed by further investigation.

To be systematic in the employment of inspection, begin with the general appearance of the little patient. If it is bright looking and lively there is really no cause to suspect any acute serious trouble; if it is quiet, or cross and peevish however, there may be. In infants suffering from fever, for example, there is usually much restlessness. In pleurisy with effusion, however, the general appearance of the child is out of proportion to the gravity of the affection, the patient not looking as ill as the nature of the disease would warrant.

It is well to observe the various positions the child rests in or assumes. Rickety infants sometimes carry the head to one side, or hold it backward, as if in a state of partial opisthotonos, from muscular weakness. Idiotic infants often cannot hold up the head, even as late as the end of the first year of life. In meningitis the head is thrown backward with a jerk. Rolling of the head from side to side is often seen in infants suffering from cerebral irritation from excessive heat. Rickety infants often do not sit up straight, but lean the body forward, from muscular weakness. Children that are late in learning to walk, but who are able to sit up, will bear the weight of the body on the hands, when suffering from tubercular disease of the spine. This may be noticed before any signs of deformity of the spinal column are present. Teething infants are often fond of laying the side of the head on the nurse's shoulder, even when not sleepy. Holding one shoulder higher than the other indicates either scoliosis or an empyema. Choreaic twitchings of the muscles are self-evident.

In older children the walk should be observed, especially when pain in a lower limb or a loss of muscular power is complained of. An abnormal gait may be due to articular rheumatism, arthri-

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tis, paralysis or rickets. The shoes should always be first removed.

Movements of the hands to the head or ear by infants, is suspicious of earache; especially if accompanied by a moan or sharp cry, and pulling at the hair or at the genitals indicates brain trouble. In the male infant, the latter may be also due to some local irritation. Infants will often rub or press the neck with the hands when suffering from true croup. Lack of use or movement of a limb will suggest paralysis of the muscles or pain about the large joints.

The size of the body, compared to the age of the child, will show the rate of growth or the degree of nutrition that the patient is capable of maintaining. In the advanced stage of rickets the trunk is often noticed to be apparently well nourished, while the extremities, especially the lower, are out of proportion in growth and size.

In studying the trunk of the body, first notice the thorax. Its shape in rickets affecting older children is often characteristic, the sternum being prominent, like the keel of a ship or breast of a chicken, while the walls on each side, parallel to the sternum are depressed. This deformity is owing to the external pressure of the atmosphere, of sixteen pounds to the square inch, upon the softened ribs at their epiphysal junction with the sternal cartilage, the internal pressure of the thoracic cavity, owing to weak contractility of the respiratory muscles, being over-balanced. The lower costal cartilages are from a like cause often seen turned upward and outward. In asthmatic patients, and those having chronic bronchiectatic cavities of large size, the thorax has a square or barrel shape. In certain cardiac affections accompanied with marked dilatation, and in large pericardial effusions, the area overlying the heart has a bulging appearance. Flatness of the front of the thorax indicates a feeble power of respiration. It is usually accompanied with prominence of the clavicles, and marked depression of the supra-clavicular spaces. In older children there is also likely to be depression and rounding of the shoulders.

Movements of the thorax indicate to a limited extent the condition of its contents. In pleuritic effusion there is less movement of the intercostal spaces on the affected side; when the effusion has developed into empyema, the affected side becomes markedly contracted and motionless, particularly in the later stages of the disease. In pneumonia and fevers the movements of the thorax, corresponding to the act of respiration, are rapid. In valvular lesions of the heart, in older children, the apex beat can be seen changed in position; that is, outside the nipple line and as low as the sixth intercostal space. In children under five years of age, the normal apex beat of the heart is nearly on a line with the nipple in the fourth intercostal space. In adhesions due to former attacks of pericarditis, there is seen a recession of the intercostal spaces overlying the heart, during cardiac contraction, which often gives a wave-like or fluttering appearance to the cardiac impulse. This wavy agitation of the cardiac area is all the more extensive when the adhesions occur towards the base of the heart. The observation of this feature is most important in prognosis, for it enables one to predict subsequent valvular lesions from interference with the rythmical action of the heart walls, before any signs of murmurs exist. Beaded ribs are a sign of rickets.

The abdomen may next engage our attention. It is enlarged out of proportion to the size of the body in rickets, struma and chronic intestinal indigestion; the latter, by the way, being a disorder quite common in over-fed children. The abdomen is also enlarged in typhoid fever, peritonitis and ascites, the walls being also tense, in contradistinction to the flabby character in the first named conditions; but in ascites, besides being large and tense, the abdomen is pear-shaped, and the superficial veins over the upper part are enlarged. An enlarged liver, spleen or a hydronephrosis, and in fact any tumor of the abdominal cavity may cause an enlarged abdomen. A retracted or "scaphoid belly" denotes extreme malnutrition. A protruding umbilicus denotes a hernia at that point.

Inspection of the nates in young infants furnishes an index to the condition of the lower part of the intestinal canal. The intertrigo so commonly present in artificially fed babies, a result of the acid nature of the fœcal discharges, is highly suspicious of mycotic catarrh of the intestines. The intertrigo must not be confused with eczema —which is present in older infants, especially females, as a result of vulvo-vaginitis, nor with the eruptions of inherited syphilis. The inner surface of the thighs about the groin show the first sign of impaired nutrition in the summer diarrhœas of children.

The head presents many points of interest for inspection. First, the cranium, its size, shape, condition of the fontanelles, the character of the hair and presence of tumors. The small head or microcephalic, denotes a possibility of backward mental development approaching idiocy; the large head with bulging fontanelles hydrocephalus; with depressed fontanelles, more likely rickets; the flat crown or box-shaped head is characteristic of rickets, the circular crown of hydrocephalus. The depressed condition of the anterior fontanelle is a sign of impaired nutrition, and with an enlarged size for age, is a frequent mark of rickets. The protruding or elevated fontanelle occurs in hydrocephalus and inflammation of the meninges of the brain.

The hair in rickets is coarse and dry, and breaks easily from the occiput as the child rolls its head upon the pillow. It is also dry and scanty in myxœdema. In new-born infants there may be tumors of the cranium, as cephalhœmatoma and caput succedaneum. There may also be the marks or ridges left by the use of instruments in labor.

The face furnishes the expression of the features that with the older physicians was regarded as of most valuable assistance in the interpretation of infantile complaints. The contraction of the brows denotes pain, and with aversion of the eyes to light, headache and cerebral irritation. Depression of the angle of the mouth and upper

lip, with pinched nose, gastro-intestinal trouble; an anxious expression, lung and heart disease. The rapid play of the lower and outer cartilages of the nose, or the fan-like movement of the nostrils, as it is called, is characteristic of pneumonia. The expression of the face in chronic adenoid growths of the vault of the pharynx in older children is characteristic and striking. The lower jaw is dropped, drawing the muscles of the face down, and obliterating the superior naso-maxillary crease; the mouth remains open, the nose pinched, as it is very little used for breathing purposes; the inner canthi of the eyes are widened, and the entire face presents what has been called a frog-like aspect. In myxœdema, there is besides the swelling of the face, the thick and livid lips and dirty palor, a stupid expression that might be mistaken for idiocy. The expression of idiots is at once apparent, especially if, in older children, they dribble from the mouth. Dribbling in infants from four to ten months old, is indicative of teething. In older children not idiotic, it indicates either ulcerative stomatitis or salivation. In diphtheria of a severe type there is a general appearance of the face that may not be called an expression exactly, that is at once peculiar; the face is pale and waxy, with a livid tint upon the cheeks instead of the pink flush of health. In measles also, the general appearance outside of the eruption is characteristic; the face is slightly swollen, the conjunctiva congested, the eyes watery and half closed to light. The color of the face in morbus ceruleus, or congenital patency of the foramen ovale of the heart, is almost blue. In intense anæmia the lobes of the ear are a dead white.

In pertussis of a severe form, the eyes may sometimes indicate the violence of the attacks of cough, the conjunctiva containing hemorrhages, which extending to the loose, connective tissue of the lower lid, may cause an ecchymosis of that region of the face. The yellow hue of the conjunctiva is the first sign of jaundice. The condition of the pupils should be observed. Nystagmus and recent strabismus may denote cerebral tumors.

Swelling or œdema under the lower eyelids is more likely due to a nephritis than to cardiac disease. The dark ring around the orbit is suspicious of intestinal indigestion, supposed by old women to be due to worms. It is also of frequent occurence in neurotic subjects.

Swellings at the angle of the lower jaw, if in front of the ramus and below the lobe of the ear, is characteristic of mumps or parotitis; while if behind the ramus, it is more likely due to a lymphnode or phlegmon. A number of enlarged lymphatic glands about the neck points to lymphadenoma or Hodgkin's disease.

The teeth in infants and children furnish important information in forming a diagnosis, and should always be inspected. Their absence or late appearance below the first year of life is highly suspicious of rickets, so is their early decay. The notched condition of the upper incisors of second dentition, known as the Hutchinson teeth, is a stigma of hereditary syphilis; and I am inclined to regard a marked serrated condition of the same teeth of first dentition as of a like nature. The notched upper incisors of first dentition is a stigma of rickets. In the headaches and earaches of older children always look for decayed teeth.

The buccal cavity and pharynx should always be inspected in the examination of infants and children. The great importance of observing this practice will at once be evident, when it is known that oftentimes in affections of these parts, the little patients will make no complaint nor express any sign by which attention will be directed to the seat of disease. In diphtheria, for instance, older children will often continue at play until the disease is well advanced; and I have known a capable physician to lose his own child from this disease, through neglecting to inspect the throat of the patient at the onset of the attack; for when the disease was discovered it had already gained a fatal headway.

High arching of the hard palate is, according to Clouston of Edinburgh, an important index of neurotic degeneracy, and of liability to the developmental neuroses. It is of hereditary origin. An ulcer or abrasion under the tongue, near or on the frenum, is suspicious of pertussis. The condition of the dorsum of the tongue is, of course, to be noticed. Much time might be saved to the busy physician if mothers were encouraged to train their children to show their tongues when asked.

The soft palate will almost invariably show the first signs of the eruption of measles, twenty-four hours before its appearance is made upon the skin, the mucous surface being congested in a mottled manner, not uniform, as in scarlatina or catarrhal angina. Cleft palate may be discovered. The presence of thick muco-purulent secretion behind the velum of the palate is evidence of post-nasal catarrh, which, when allowed to become chronic, may give rise to the growth of adenoid vegetations. Post-pharyngeal abscess may be discovered.

On inspection of the extremities, if in infants the thumbs are drawn into the palms and the hand closed over, it indicates a condition of malnutrition or rickets, and is often the precursor of general convulsions.

Enlarged phalanges or dactylitis may indicate syphilis or rickets. Clubbing of the finger tips denotes imperfect oxygenation of the blood from obstruction of the pulmonary circulation. Several enlarged joints will point to articular rheumatism; one only, rather to synovitis. Enlarged epiphyses and curved long bones are characteristic of rickets.

One limb or part of a limb only, is often swollen from the sting of an insect, as a mosquito for instance, and may, without further investigation being made, be mistaken for erysipelas. Swelling of both feet and legs is a common result of cardiac disease; but it may also occur in neurotic children whose nutrition is below the normal, in the form known as angio-neurotic œdema. Enlargement of the lower limbs without œdema occurs in congenital syphilis.

It is not intended under the subject of inspection to refer to the diagnosis of skin eruptions, but where there are any signs of an eruption the entire body should be exposed, otherwise serious blunders in diagnosis are liable to occur.

The diapers should be inspected as part of a complete examination.

In summing up the value of inspection in pediatrics, it will be easily seen that its greatest importance is in the study of the diseases of infancy, for here we can gain no information from the patient, and expertness in observation and thorough physical examination is the only means at our disposal of becoming successful diagnosticians.

ETIOLOGY, PATHOLOGY AND SYMPTOMATOLOGY OF TONSILLAR HYPERTROPHY.

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THE faucial tonsils are composed of masses of lymph follicles and diffuse adenoid tissue, covered with a layer of stratified epithelium, which dips down into its substance, thus forming from eight to twelve blind pouches or crypts in each organ. In the walls of these crypts are to be found many muciperous glands.[1] The whole is environed by a layer of connective tissue, which forms a definite reticulum or framework, within the meshes of which the lymphoid tissue is deposited. Large lymph spaces occur in the neighborhood of the tonsils, but as yet no direct connection between them and the lymph follicles of the amygdalæ has been found to exist.[2]

The function of the tonsil is unknown, although we are aware that it does secrete numerous lymph corpuscles, which migrate, in a fully developed condition, through the epithelium covering the tonsil, and becoming mixed with the saliva, constitute the mucous or salivary corpuscles.

Hypertrophy of the tonsil is a disease peculiar to childhood, although it sometimes makes its first appearance during early adult life, and cases are on record, where the condition has persisted as late as the sixtieth year. The tendency is, however, for the tonsils to undergo atrophic changes during adolescence. It is undoubtedly hereditary in a large number of cases, as evidence of beginning tonsillar enlargement is found in the fœtus; and it is a common occurrence to meet with children with enlarged tonsils, whose parents and even grandparents have been the subjects of the same disease. In fact, this is a popular prejudice among a number of people, against having any treatment for the reduction or removal of hypertrophied tonsils begun in their children, because the mother and grandmother of the child have preserved and cherished these masses of diseased lymphatic tissue, although having on many occasions suffered from violent sore throats, and it would be an injustice to the child not to allow him the same privilege.

We find this disease an exceedingly common one among children who are the subjects either of the strumous or the lymphatic diathesis. Bosworth[3] estimates that from five to eight per cent. of all cases are the result of one or both of these causes.

Probably the most potent factor in the production of this pathological condition is one of the following diseases: scarlatina, diphtheria, measles and syphilis. Various writers place the number of instances arising from these causes at from twenty-five to fifty per cent. of all cases.

Each one of the above-mentioned diseases has a pre-disposition to attack lymphatic tissue, and the glands in the vicinity of and including the tonsils, are the ones which are most frequently selected for assault. While under the stimulus of an acute inflammation, the seeds of a chronic process are sown, which finally develop into a state of permanent tonsillar enlargement. Hypertrophy of the tonsils is possibly somewhat more frequent among boys than girls, for the reason that the former are more exposed to the weather, and consequently suffer more from pharyngeal troubles. Finally, the tonsils may undergo progressive enlargement with no apparent cause, the process beginning as a chronic one.

Clinically we find the tonsil hypertrophied: 1st. Chiefly in its vertical diameter, in which case the organ is more or less flattened, with its lower angle projecting well down in the direction of the larynx. 2nd. With all of its diameters increased, the organs presenting large ovoidal masses, approaching each other in the median line. 3d. It may be tabulated. Both tonsils are usually involved, although occasionally the enlargement confines itself to one side only.

In the first two classes we find the tonsil soft, its crypts dilated and often filled with whitish masses. Tonsils belonging to the third class are usually hard, their crypts more or less obliterated, and their surface marked by glistening bands of connective tissue.

From a pathological standpoint, enlarged tonsils may be divided into two classes, viz.: the adenoid and fibrous.[4]

As we have seen, the normal tonsil is composed of a network of connective tissue, in the meshes of which are to be found groups of lymph follicles. The adenoid tonsil is characterized by an increase, both in the number and size, of the individual gland elements, together with a moderate thickening of the fibrous stroma. It is very vascular, of a rosy hue, and bleeds freely on section. The mucous membrane covering the tonsil and lining its crypts, is much thickened.

This is by far the most prevalent form of hypertrophy, and the one we usually have to deal with in children. It shows itself early in life, as a rule from the third to the fifth year; is always associated with adenoids in the vault of the pharynx,[5] and has a tendency to undergo atrophic changes after puberty.

The fibrous variety of hypertrophy contains excessive amount of connective tissue, so that the lymphoid cells are compressed and become more or less obliterated.

Hence we find its secretion diminished and its crypts occluded. It is pale in color, of a firm consistency, and as a rule its removal by the knife is attended with but little hemorrhage.

First among the prominent symptoms of hypertrophied tonsils I place a poor condition of the system generally. This is due to a number of causes. The enlarged masses encroaching on the faucial space, interfere with respiration, and actually decrease the amount of oxygen that is daily taken into the lungs.

The cheesy masses which we find in the tonsillar crypts consist of gland secretion, epithelial cells, leucocytes, together with fragments of food that make their way into the pockets during the act of deglutition.

Being largely composed of animal tissue, these bodies undergo decomposition, and give rise to poisonous gases, so that the respired air becomes vitiated and the subject of this disease lives constantly in a contaminated atmosphere. Fragments of these bodies are carried into the stomach with the food, and give rise to fermentation of the contents of the gastro-intestinal tract

Fetid breath is often a sign of the presence of these decaying masses, and is corrected by their removal. While I appreciate the fact that the most frequent cause of mouth breathing in children is an enlarged Luschka's gland, still it cannot be denied that hypertrophy of the faucial tonsils plays an important role in the production of the same symptom.

Knight[6] records a case in which lying on the left side brought the enlarged right tonsil in contact with the epiglottis, thus provoking spasmodic cough. Lennox Browne[7] also speaks of a case of persistent cough which yielded only to ablation of the enlarged tonsils. Nightmare in children is very often the result of hypertrophied tonsils.

Impairment of hearing, is, I think, more frequently caused by these enlarged masses than many are willing to allow. It does not seem to me to be caused by actual contact between the amygdalæ and the proximal ends of the Eustachian tubes, as some contend, for this is an extremely rare condition, but by the tonsil extending backward sufficiently far to interfere with the discharge of the mucus which moistens the tube.

According to Bosworth,[8] the action of the tensor and levator palati muscles, which largely control the air supply of the middle ear, is interfered with by the pressure of hypertrophied tonsils, thus causing impairment of hearing.

Deglutition is rendered difficult by these enlarged glands, and in some cases this condition becomes so extreme that immediate removal is necessary. I have recently had a case of this kind in the person of a young lady aged eighteen, who had repeatedly suffered from bad sore throat. Each attack was more severe than its predecessor, and was invariably followed by increased difficulty in deglutition. She became run down, and lost flesh, in consequence of her not being able to take sufficient nourishment. The last attack of acute tonsillar inflammation from which she suffered, left the organ so enormously hypertrophied that the front part of the faucial space was almost completely occluded, and for many days she was able to swallow fluids only. I removed the offending members, and in a few days she was eating and enjoying solid food again, a thing which she had not done for months. The subjects of tonsillar hypertrophy always take cold easily; the voice has a characteristic sound, and certain letters, as *l* and *r*, are difficult to pronounce. Finally, the diseased glands between the faucial pillars offer the most favorable situations for a variety of pathogenic germs to tarry and multiply in, from which location they enter the circulation.

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DIFFERENTIAL DIAGNOSIS AND ELEMENTS OF PROGNOSIS OF SURGICAL SHOCK.

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THE relation of cause and effect is usually so apparent that the question of the diagnosis of shock rarely presents any difficulty; so little, in fact, that in most treatises on surgery there is no mention whatever made on the subject, and in practice the physician seldom gives much thought to the matter. And yet, in spite of this apparent simplicity—perhaps it would be better to say on account of it—mistakes are possible, and probably indeed not so very uncommon. These errors consist, as a rule, in failures to detect complications which arise before the patient has completely reacted from the shock of the injury or operation, and which by their action prolong or increase the general prostration. Whenever it is apparent that the shock is more severe, or the reaction is not so prompt or complete as one would naturally expect from the character and extent of the injury in that particular person, then a most careful examination should be made, and one should not rest satisfied until the cause is found.

The effects of immediate hemorrhage are usually so combined with those of shock that it is impossible to separate them, and, fortunately, this is of little moment, as the treatment is, in a general way, the same. When, however, the danger seems to be chiefly due to the loss of blood, then in addition to the general treatment there should be an effort made to supply this loss by sub-cutaneous, rectal, peritoneal or intravenous injections. It is, however, in cases of recurrent or concealed hemorrhage that mistakes are more common, and the life of the patient is often sacrificed as a result. In external wounds the danger is usually quickly recognized, but within the abdominal and thoracic cavities hemorrhage may go on undetected until

the patient is almost, if not quite, moribund. The following is a case in point:

Colotomy in a young woman for pyosalpinx; adhesions quite extensive, but easily loosened, as they were not very firm—capillary hemorrhage quite free but readily checked by pressure—heavy braided silk ligatures; stumps examined before being dropped, and were blanched and dry; abdominal incision closed—shock not very severe, and the patient was beginning to react, and the pulse was good an hour after the operation. When seen again three hours later, an alarming change was at once noticed, and the almost imperceptible pulse, extreme pallor, utter prostration and sighing respiration left little doubt as to the cause—and this was removed by the examination of the abdomen—the presence of a large amount of fluid being easily detected. The wound was immediately reopened, a large amount of blood washed out and fresh ligatures applied; but in spite of the most active efforts at resuscitation, she failed to rally. In this case the nurse was in the room all the time, but failed to notice the change in the patient until her attention was called to it.

These cases are not at all rare, and the possibility of their occurrence should ever be in our minds in thoracic and abdominal injuries and operations, and the pulse and general condition carefully watched. Increasing prostration and pallor, rapidity of the pulse with diminishing volume and force, restlessness and sighing respirations are signals of danger, and careful physical examination will usually reveal the cause of the unfavorable symptoms.

The hæmoglobinometer has been proposed as a means of diagnosis in such cases, from the fact that in hemorrhage the amount of hæmoglobin is diminished, while in shock it remains normal, but there is rarely much doubt as to the diagnosis, and the necessary delay might be fatal.

Perhaps even more to be dreaded than recurrent hemorrhage is acute septic poisoning. There is one form of this which begins almost immediately after the receipt of the injury; the germs enter directly into the circulation, and there multiply with such rapidity that the system is overwhelmed with their toxic products. In these cases a fatal termination may occur within a few hours, and treatment has little or no influence on them.

The following is a good illustration: A young, strong, healthy man, twenty-four years of age, suffered a compound comminuted fraction of both bones of the leg from the slipping of a dirty sugar barrel which he was loading on a wagon. The external wound was small, but contused and dirty. Shock was well marked, but not very severe. Two hours after the receipt of the injury ether was given, free openings made, fragments removed, drainage through and through the leg, antiseptic dressing and plaster circular applied. The patient partially reacted but then relapsed, the prostration increased, the pulse became more and more rapid, small and compressible, the respirations shallow and rapid. As the effects of the ether passed off he grew delirious, then quieted down into an apathetic condition, which gradually deepened into a stupor and finally into unconsciousness. The temperature rose rapidly; it was 102° twelve hours after the injury, and 106° just before death, which occurred in twenty-four hours after the accident. The autopsy revealed nothing beyond an intense congestion of all the internal organs.

These cases are fortunately not common, and where, as is often the case, the temperature is sub-normal, the prostration extreme, the pulse very rapid and small, and they develop almost immediately after the injury, it is almost impossible to form a correct diagnosis. If, as is more often the case, the patient has partially reacted from the shock and then has a chill, followed by such a train of symptoms, their import can then hardly be mistaken.

Fat embolism is another condition which at times develops with such rapidity and leads to a fatal termination so quickly as to be entirely unrecognized. The following is a typical case:

A boy sixteen years of age had osteotomy performed for ankylosis of both knees. Shock was quite profound and the reaction tardy and incomplete. The labored breathing was noticed a few hours after the operation, but its significance was not at first suspected. Then it was observed that he was getting restless and his pulse increasing in rapidity and diminishing in strength. The respirations grew more and more rapid and labored, the skin assumed a dusky pallor, and was covered with a profuse cold sweat, indicative of his extreme prostration. Delirium succeeded stupor, deepening into coma. The pulse became imperceptible, the extremities cold, and he died in thirty-six hours after the operation.

Autopsy revealed engorgement of the capillaries of the lungs, liver and kidneys with fat globules. The brain was not examined.

In every case of severe injury involving tissues rich in fat the possibility of this complication should be borne in mind, and more especially when the cancellous tissues of the bones are extensively crushed. In injuries of this character, the richness in blood vessels, the abundance of fat, and the increase of pressure occasioned by the resistance of the osseous network to the swelling, afford the most favorable conditions possible for the entrance of fat into the circulation. Whenever symptoms of dyspnœa, restlessness and prostration develop a short time after such injuries, the suspicion of fat embolism should at once enter the mind. Repeated careful examinations of the urine should be made, and if free fat be detected the diagnosis is made certain. It may be well to mention here that no fatty substance should be used to lubricate the catheter used for obtaining urine used in these examinations, as I have seen an error of diagnosis arise in this way.

Certain complications arising from the use of an anæsthetic are at times difficult to distinguish from the effects of shock. These are most common in patients subject to bronchial and kidney troubles. Routine examination of patients before operation should put us on our guard against these, and will often make clear what would otherwise be an obscure case. When suspicion is

once aroused, their diagnosis is usually not difficult; physical examination will disclose a pulmonary congestion or œdema, and even in cases of suppression of urine usually enough can be obtained by the catheter to furnish the necessary tests.

The sudden admission of cold air into the lungs after tracheotomy may give rise to congestion of a very serious nature. In the following case no other cause for the fatal termination could be discovered. Tracheotomy was performed on a young man in fair physical condition for almost complete stenosis of the larynx of a syphilitic nature—chloroform narcosis. The shock was comparatively slight. After the operation he was carried about two hundred yards through an open corridor to his room, the temperature at the time being below freezing. Difficulty in breathing was almost immediately apparent, and rapidly developed into the most intense dyspnœa; the diminished respiratory murmur, coarse and fine mucous rales and dullness on percussion left no doubt as to presence of œdema of the lungs. Death occurred in twelve hours after the operation. There is no doubt but that the constitutional disease predisposed this patient to the fatal complication, but it seems equally clear that the careless exposure served as the exciting cause.

Finally, the alarming and even fatal collapse which occasionally follows the use of cocaine may simulate so closely that from shock, that it may be impossible to distinguish them. The fact that the prostration is usually out of all proportion to the severity of the operation is generally so apparent as to lead us to a correct conclusion. Those cases attended by delirium, restlessness, paroxysms of dyspnœa, epileptiform attacks or convulsions, present no difficulty; but on the contrary, if the pulse is very rapid and feeble, the respirations superficial, the skin pale and covered with a profuse sweat, the diagnosis can scarcely be more than conjectural. Fortunately the treatment would be practically the same in either case, so an erroneous diagnosis would not be of serious import to the patient.

As regards the progress of shock, the limits of this paper permit of but a mere outline of some of the more salient points.

The very young and the very old are especially prone to severe shock; but whereas in the former the reaction is apt to be rapid and complete, in the latter it is often slow and feeble.

Those addicted to the use of alcohol, or suffering from diseases of the internal organs, especially the kidneys, often suffer severe and even fatal shock from even slight injuries or operations, and in addition severe and dangerous complications are apt to accompany or follow the reaction.

Depressed mental states, hysterical or neurotic temperaments, suffer more severely than the hopeful, courageous and cheerful.

Persons struck down in robust health by some severe injury are more profoundly affected than those in whom the nervous sensibilities are blunted by suffering, and who have submitted to an operation for relief.

Under strong mental excitement persons will often sustain the most severe injuries with no manifestations of immediate shock. This is frequently seen in gunshot wounds received in battle.

The extent, character and seat of the injury must always be considered. There is more shock from burns, when a large area is affected superficially, than when the injury is more limited in extent but deeper; more from a crushing than from a cutting injury, and more when some of the vital organs, especially the brain, are involved than when such is not the case.

The more profound the prostration, and the longer the condition prevails, the greater is the danger. Increasing rapidity of the pulse, with diminution of force and volume, in connection with continued subnormal temperature, almost always indicate a fatal termination.

Deepening of the stupor, increasing restlessness, persistence of the pallor and coldness of the surface, profuse sweats, continued vomiting, insensibility of the pupils, inability to swallow, and relaxation of the sphincters, all betoken the greatest danger, and are rarely followed by recovery. On the contrary, a stronger, steadier, less frequent pulse; slower, deeper, more regular breathing; returning warmth to the extremities and color to the skin, and returning consciousness, are indicative of a healthy reaction, and relieve our mind, at least as regards the immediate danger of the patient.

DIPSOMANIA—EROTOMANIA.

By James A. Carmichael, M.D., New York.

THE pneumogastric nerve will first engage our attention in its connection with dipsomania. From its many associations with other nerves and from the beginning of these associations, almost at its very point of exit from the cerebrum, cerebellum, medulla oblongata andother deep sources of origin, it is easy to understand that it must be prolific in its dispensation of nerve force, and that its nerve force must abound in vitality, variety and quality. It not only inherits multiple forces and properties from the number and variety of its brain associations and the specific endowments of the material nervous matter composing it, and fitting it for complex functional operation, but its very synonyme itself—nervus vagus—the wandering nerve, is fully significant of the widespread and generous distribution of its powers and of the many and various functional activities that are in constant operation in the human body under the impulse of its influence, and that make up so large a portion of the sum of human physical life. From its exit from the brain to its terminal fibrillæ among the intestines, it is bestowing its specific and peculiar vis vitæ, here, there and everywhere, to the other nerves with which it is in association—too numerous to be repeated here—to larynx and trachea for purposes of vocalization and respiration; to pharynx and œsophagus for those of deglutition and incipient digestion; to heart and lungs for circulation, respiration, and in

its intimate and innumerable pulmonary associations with that other mysterious ganglionic force of the great sympathetic, for the arterial and venous blood changes occurring continuously in the pulmonary substance, and finally to stomach, liver and intestines for the multiple purposes of digestion. From all these numerous associations and their influences, it is not difficult to trace the sources of the phenomena that characterize dipsomania when it shall have fastened itself upon its victim. So then we may legitimately conclude that this disease is of composite origin, and involves the senses of smell, taste, thirst, the powers of deglutition, digestion, etc. Now, as respects the cerebral localization of dipsomania, we believe that as Broca localized aphasia in one of the anterior cerebral convolutions, and as subsequent investigations tend to show that his special locus loquendi is not an unit, but of multiple location—for the verification of which we beg leave to quote from our former translation of the discussion of aphasia in the Medical Congress at Lyons, France—"the physiological facts of the function of articulate speech are too complex for its psycho-motor forces to be localized in the locality designated by Broca. There still remains a necessary subdivision of four cortical centers in which the principal elements of this function reside." So is it reasonable to conclude that the disease under our present consideration, dipsomania, is the result of a morbid action beginning somewhere in the dipsomaniac area, so to express it, embracing the various nerve forces to which we have adverted, and opening an extensive field for investigation by the diligent student of cerebral localization? If, as often happens, the mere transient smell of drink in any form, especially alcoholic, will "work madness in the brain," then the primary agent must be found somewhere in the cerebral tract of olfaction. We have elsewhere endeavored to show that the sense of olfaction is begotten of a trinity of powers, each one of which contributes to the perfection of the sense. If the dipsomaniac manifests the abhorrent depravation and disgusting perversions of taste that we have elsewhere cited, then follow the glosso-pharyngeal, lingual of the fifth, chorda tymani of the seventh and hypoglossal back to their sources, deep in the brain; we believe that the "fons et origomali" is there. In the pharyngeal plexus, and its nervous connections, the all-consuming thirst lies perdue and dormant, to be rudely awakened by that curious law, as it seems to be, of periodicity that compels the morbid manifestations of so many of the diseases that assail the human body. The "furor bibendi" again starts up, and literally takes the poor, unhappy wretch by the throat. Dives cried, *ab profundis*, "Let him dip the tip of his finger in water and cool my par-ched tongue, for I am tormented in this flame." Like his, the piteous dipsomaniac cry is heard, "Give me drink, give me drink, or I perish!" Lastly, in connection with dipsomania, we propose a few observations respecting the comparative differentiation between this disease and certain other cerebral affections. We are told by authority that there is an identity, or rather affinity, between dipsomania and epilepsy, for example, but to our mind there are scarcely any two diseases in the whole nosological record that present more conditions of absolute difference than these two. We do not propose an absolute investigation of them from an anatomical, physiological and pathological point of view, but simply the consideration of a few of the characteristic symptomatic phenomena of each, with a view to their discriminating differentiation. We learn from authority that "In surgical and medical practice it is well known that blows on the head are not infrequently followed by epileptic fits, and the periodic attacks of dipsomania after injuries tend to point to a relation between epilepsy and dipsomania. Just as an injury to the head, by producing some alteration in the nerve centers, brings on epilepsy, so do they at other times bring on dipsomania by no doubt causing some alteration in the nervous tissues." With all due respect we submit, that a blow on the head may, and undoubtedly often does, induce epileptic or epileptiform convulsions; so will other forms or other causes of centric irritation do the same thing. But we very much doubt if any such cause will develop a tendency to dipsomania, unless the irritation shall invade the locality or localities from which proceed the nerve forces that compel the evolution of the phenomena of dipsomania. A man "may take to drink" as it is vulgarly called, after his head has been well pounded, as a solace and a soothing poultice to ease and bind up his wounds, but again we doubt if the pounding had much to do with his "falling from grace," and, as the down east Yankee would say, it was so good that he "kinder hankered after it" from that time on. If a dipsomaniac should become subject to fits, it is due, in our judgment, to the toxic effects of alcohol, or some other equally poisonous drink, acting somewhere within what we have demonstrated as the dipsomaniac area. The fit too, will present physical manifestations altogether different from those characterizing epilepsy. Who wonders, that the poor epileptic, pursued relentlessly by the horror suspended over him, and that may dash him down to the earth at any moment and strangle him in its cruel coils, who wonders that he craves forgetfulness, be it ever so transient, of his pitiless doom, and seeks to drown his wretchedness in the bottle? To this hour epilepsy is the "opprobrium medicorum," and all the appliances and resources of the healing art are impotent to say as did the "anointed *ιασος*" to the stricken sufferer, "I charge thee, come out of him." Again, the pathological history of epilepsy shows that in this disease there is a tendency in certain localities in the brain to the disintegration and ramollissement or softening of the cell structure until it becomes diffluent; hence we see in the epileptic the gradual decay and final abolition of one faculty of the mind after another, one special sense after another, and the pitiable imbecility that ensues creates the hope that death will soon close the scene. We need not cite any other illustrative comparison to show our convictions as to absolute cerebral localization in that class of diseases at least, in which alterations and per-

versions in the operations of nerve force are the prevailing conditions. The white, gray and ganglionic nervous matter of the human body tell, each for itself, the story of decadence from its normal integrity, and the true source of many diseases now obscure, will, in our belief, be found deep in the nervous matter of the brain and its associate dependencies.

In considering the antecedent subject of our investigations, dipsomania, and its relations to other forms of mental aberration and obliquity, we had to deal with a disease largely dependent upon the introduction into the body of such stimulating elements as tend, primarily, to exalt the nervous forces to an undue performance of their normal functional activities, to be followed, not only by subsequent exhaustion of their vitality, but also by such unnatural and repulsive perversions as at once to cause the physician to declare that the individual manifesting such phenomena, physical, physiological, pathological, and emotional, is, to all intents and purposes, mad, and needing the eleemosynary care provided for all such unfortunates. The subject matter to which we now propose to direct inquiry is one of a different character, and though it may ultimately be reckoned among the almost innumerable forms of insanity that beset and degrade human nature, yet its primary impulses, and the urgent forces that compel the exhibition of its often revolting phenomena, belong more to the moral part of man's nature, and are the result of the hypersthenic activity with which certain otherwise normal and healthful functional operations of the physical body are allowed to liberate themselves from all restraint, and we are shocked that a man, grown-to-be-beast is among us, and we instinctively close our eyes and ears lest they be contaminated by sight and sound of the human monster. At the moment that we write these lines, all London, and through the lightning-speed and space-devouring velocity of the electric messenger all the world, stands aghast at the spectacle of man's depravity, that, in its "vaulting ambition" to defy and set at naught the hindrances and safeguards that hedge society, pollutes the moral atmosphere with such things as make us wonder if, "like a crab," civilization has gone backward, and we live over again the obscenities and depravities of the darkest ages the world has known! And yet this man, whose name shall not stain the page whereon we write, was once, and not long ago, a social darling in this our city of New York, and even then reeking with the moral filth whose name would defile a very "cloaca" of all that's noisome and mephitic. Nay more, and incredible as it may seem, this *soi-disant poseur* of æstheticism—another name for social license and libertinism—is even capable of a social regenerative purification, and, such is the elastic complaisance of our social fabric—we allude especially to that portion of it designated by numerals—that he will, in all probability, again entertain the numerals with some more æsthetics by and by. We cite this instance in the early part of our investigation, both because it serves well to illustrate the tendencies of the disease now under our view, and also because it has just come fresh from the Babylon that breeds so much that is immoral and impure. Grieved to add that, alas! it finds congenial soil here too, and that the rank and putrid fungous excrescence of moral pollution and decay, grows apace and, flourishes as well in this our own modern Babylon! Perhaps if we should succeed in proving that these vile tendencies to mental and moral perversion constitute a veritable disease, and that they are stimulated and projected into existence, and into the habits of life, irresistibly by a morbid condition of certain parts and organs of the physical body, some hyper-philanthropic zealot and lover of his kind, no matter how degraded, will say, with meekly folded hands and piously uplifted brow, "Well, it's a disease; they can't help it, and therefore not responsible. 'Lord, forgive them, they know not what they do.' Let us pray!"

We get up in the morning, and we scan the newspapers as we eat the matutinal toast, and the nutrient egg or succulent steak, as may be, and now, in these degenerate days, we rather look curiously to see which one of our sister communities will supply us with the freshest scandal anent the backsliding parson or the pious divine, as he moves lovingly, and with "healing in his wings," among the dear ones of his flock, especially the lamb portion of it. And when some peeping old deacon, or mayhap, and worse still for the parson, vinegar-cruetty spinster, stimulated by the memory of past joys, never to return, and also by the obligation of her sense of duty to preserve the moral purity that should pervade the sanctuary, spies out a little *tendresse* here, a questionable "peccadillo" there, the outraged virtue within her takes the alarm, and the poor man is soon made to feel what it is to incur the jealous and vindictive wrath of a woman who never gets beyond a certain age, say about thirty-five—that period they will generally confess to and not a day over—and who has been deprived by cruel fate of the natural dignities of wifehood and motherhood. What can he do but plead innocence, wear "sackcloth and ashes" for a season and cry "Peccavi, peccavi, culpa mea, culpa mea," or brazen it out before a court of inquisition composed of erring mortals as guilty or may be more so than himself, whose verdict will condemn or acquit him, and in either case, he again holds up his head and soon seeks "pastures new." He reminds us of the unfortunate who was once surprised to find that maternity was most unexpectedly imminent, could not think how 'twas possible, and afterwards condoned the lapse by the comforting words, "But it was such a little one."

The sexual instinct, if held in subjection and proper moral restraint, and exercised with the moderation that insures the continuance and permanence of healthful functional vitality, constitutes one of the most endearing elements of human affection and inter-association, and one of the most enduring links in "the electric chain wherein we're darkly bound." But let the foul current of brutal passion and vicious sensuality have its way, let the lusts of the flesh, quickened by wine, women and wassail, and the intoxicants

that influence the blood and madden the brain have their way, then down go all the barriers of moral restraint and purity of thought, and erotomania comes upon the scene. Let us draw the curtain and hide from view the foul and pestilent thing. We have just translated for the readers of this journal certain recent proceedings of the "Société D'Anthropologie," of Paris, and among them none more curious than the projection of the theory of M. Durand de Gros, viz., that an individual is not an unit, but composed of as many animals as the body contains cells, and hence the theory of polyzoism and polypsychism, or many lives and many souls. A being is a concentration of many distinct animals, and this idea is adopted by Claude Bernard, Perrier and Herbert Spencer, and made the fundamental basis of their philosophical theories. Our reader will also remember that in our recent investigation of the sources whence spring the phenomena of dipsomania, we had to consider several of the nerve forces of the body to help us to account for their manifestation. We had not then read these ideas of M. Durand. Since then we have seen and translated them, and there really seems a curious similarity between the views of M. Durand as respects his "polyzoism." We won't undertake the solution of the other, his "polypsychism," for we draw the line at the soul part of his theory, and humbly confess our impotence to define that mysterious element of life—and our own views of the multiple physical agencies employed in producing the manifestations of dipsomania.

Now, the same argument may be applied to the revelations of erotomania. The impulses stimulative of this disease are various, and, like dipsomania, come from many and diverse sources. But, as we shall see, they differ widely from each other in many respects, and call into active operation a class of emotions and the functional activities of organs essentially distinct and independent. Taking this view of the matter, it would not be inconsistent, nay, rather confirmatory, of the polyzoic theory of M. Durand and the other authorities named.

The erotomaniac is pursued by passions, desires and emotional eccentricities of the most unnatural forms and often bizarre character. His volition and the power of individual agency are often dominated and swayed by sensations and movements within him over which he has no control, but which drive him on to the exhibition of such impulses and the commission of such acts of sensual brutality and sexual depravity as compel his fellow creatures to disown and disavow the possibility that the wretch is human, though wearing human form. Now to find out, if we can, the part or parts of the human body where lie dormant the natural forces of the sexual instinct, passive and submissive in their normal and natural condition, but when let go to their foul work, a nest of scorpions to sting and goad, until the physical body, with every good thing in it, lies spent, worn and emasculate, the degraded image of what was once a man; our readers will observe that we still keep up the search for localization. Without it we can do nothing but grope hopelessly in our efforts to find out whence proceed all these cruel things that war against man's peace and well being here, and hereafter, for aught we know.

CLINIQUE.

DIABETES MELLITUS; STRANGURY RELIEVED BY THE SOUND.

BY CLINTON L. BAGG, M.D., NEW YORK.

Fellow of the Medical Society of the County of New York; Visiting Surgeon to the Metropolitan Hospital.

MAGGIE C., aged thirty-two years; American; single. Family history shows gouty and rheumatic tendencies on both sides.

Mother died in diabetic coma. General health of patient fair, except for rectal fistula, which was operated upon in 1891 with favorable results.

Diabetes appeared suddenly while in Florida in February, 1893. Patient first noticed rapid loss of flesh, great prostration, and frequent urination, with passage of enormous quantities of water.

Upon her return to the city to consult me, found patient much emaciated (having lost two and a half pounds of flesh per day) excessively weak, pulse rapid, small and feeble. Skin dry. Constant thirst, and complains of dryness of mouth and tongue. Liver enlarged and slightly tender to pressure. No fever. Urine profuse, light in color, acid, 1.055 specific gravity, and by Fehleng's test showed abundance of sugar.

Patient put on rigid diabetic diet and had at various times arsenicum, nux vom., phos., phos. acid, ferr., codeine, uranium nitrate, salol, etc. Condition slowly improved until in June, patient commenced to gain in weight and strength. Urine less profuse, specific gravity 1.030, sugar diminished in quantity but still present. Improvement continued until September, when from slight exposure patient was seized with fever and chills, aching over body, especially over liver, which became enlarged and tender on pressure; bowels were loose, the movements being light in color and very offensive. Patient complained of feeling greatly prostrated; pulse rapid and feeble; urine profuse, 1.060 specific gravity, sugar greatly increased.

Patient put to bed and given codeine and salol, egg albumen, whiskey and kumyss. Gradual improvement set in, but urine continued to vary from 1.035 to 1.045 specific gravity.

Last record was June 20, 1894, when specific gravity was 1.045, and Fehling's test showed large amounts of sugar. On June 23rd patient went to seashore for a week, and while there felt unusually drowsy and languid. No appetite, and had general pain and soreness over body.

Before starting for home, June 30th, was seized with severe pain, right side over liver. Upon

reaching home complained of feeling greatly exhausted and immediately retired, and was found two hours later in profound coma.

Condition when patient was first seen was as follows: Skin of face and body congested and slightly cyanotic, perspiring profusely. Cutaneous sensibility entirely abolished, pupils contracted and but slightly responsive to light. Finger on eyeball caused no reflexes. Respiration slow and shallow, pulse 130, small and hard. ℞ hypodermics of glonoine and strychnine, with mustard over heart.

July 1st, day following, patient the same, only slight increase of reflexes; ℞ same; fed by enemas. Urine drawn by catheter, small in amount, acid in reaction, specific gravity 1.016, and on boiling with Fehling's solution no change in color. Slight improvement to July 4th, when patient regained consciousness, took and retained nourishment. Urinated voluntarily. Specific gravity 1.016 to 1.019, small in quantity, and no trace of sugar by Fehling's test.

July 10th patient able to sit up; urine more profuse, 1.029, traces of sugar by Fehleng's test.

Last observation, July 19; urine passed in twenty-four hours 96 ounces. Specific gravity 1.036. Fehling's test showed marked increase of sugar from last observation.

What is of marked interest in this case was the total absence of sugar during the period of coma, and its reappearance as consciousness returned, and patient able to be about.

Patient is living out of the city, and from reports, in a greatly improved condition.

Case II.—M. S., aged fifty-two; American; female; in August was seized with a severe attack of diarrhœa. This was treated homœpathically by a physician where she was stopping, but he was unable to entirely control it, and in September patient commenced to experience tenderness and pain over the track of larger bowel. Movements would vary from two to twelve in twenty-four hours, looked frothy and all chopped up. September 15th patient was awakened by severe pain in bladder and desire to urinate, which was accompanied with marked strangury. Hot fomentations were applied and remedies administered. Urine examined chemically, found to contain traces of albumen. No microscopic examination was made.

Coming to town an old school physician was consulted, when the diagnosis of cystitis was made and salol, gr. v., t. i. d., to be taken in Bethesda water.

First saw patient October 5th. Then was weak, pulse feeble, varying from 88 to 120 per minute; no fever, much emaciated and anæmic. Bowels moving from four to eight times in twenty-four hours and accompanied by pain. Abdomen much distended but tympanitic. Very sensitive over track of large intestine.

Urine voided very frequently and with much pain and strangury, acid, dark in color, 1.029 specific gravity and contained faint trace of albumen.

Microscope showed few small hyaline and large granular casts. Epithelial plaques from bladder, especially from neck, the latter showing leucocytes.

Patient unable to ride or walk with any comfort, as pain in bowels and bladder would be increased.

Physical examination gave negative results as far as stone was concerned, but marked tenderness was found over posterior surface of bladder by vaginal examination.

Various remedies were used, but the bladder symptoms continued.

Diagnosis made of cystitis complicated with interstitial nephritis, and localized peritonitis from intestinal ulceration.

Patient was seen by a specialist in consultation, who was unable to find any other cause for the suffering.

Under liquid diet, stimulation, rest in bed and various remedies, movements became normal, pain, and tenderness over bowels disappeared entirely, but the frequent urination, pain, etc., showed itself constantly. Cantharis, apis, hydrastis, bell., merc. cor., etc., were tried, as well as alkalies, and infusions of buchu. Triticum repens, uva ursa, etc., only gave temporary relief.

After standing or walking, and especially riding, a feeling was experienced as if the bladder was being forced down and out. Urination would be more frequent, and accompanied by pain and strangury.

Thinking there might still be a stone in the bladder which had been overlooked in my previous examination, when I used only a small searcher, I injected the bladder with one-half pint of water and then passed a large Thompson's searcher. Patient experienced severe pain when I reached neck of bladder, but no stone was discovered, and patient was left in considerable discomfort.

Upon calling next day found patient much improved. Said in two hours after examination all pain had gone, and the fullness and feeling as of something was pressing had disappeared. Condition has continued to improve, until patient is able to ride or walk without any discomfort.

The interesting question is: What was the condition which was relieved by stretching the urethral canal?

Medicines had not been changed, and twice before patient had been sounded, but by small instruments.

Since writing the above, the symptoms of strangury, etc., returned, and were immediately relieved by passage of the sound.

Dr. Howard Crutcher, of Chicago, (*Med. Record*, March 16, 1895,) reports what he claims as the first successful American case of "transfer of a misplaced testicle to its normal location." He says: "One feature of my operation has been witheld for purposes of emphasis. The author last quoted mentions the contraction of the cremaster as influencing unfavorably the result in certain cases. This suggestion led me to remove carefully all traces of the muscle, and this precaution should be an essential part of the technique of all similar procedures. It is as yet too early to predict anything touching the future of the transferred testicle, but as the gland and cord were protected from injury, there is no reason to suppose that their functions will not be carried on physiologically after puberty."

ATRESIA VAGINÆ—CONTINUED REPORT.*

BY WILLIAM H. WATHEN, A. M., M.D.,

Professor of Abdominal Surgery and Gynæcology in the Kentucky School of Medicine.

THIRTEEN months ago I reported to this Society an operation that I had performed, assisted by Drs. Frank and Laws, upon a married lady from Louisiana, where there was congenital absence of the upper half of the vagina, there being only a small passage, like a fistulous tract, leading from the vaginal vault to the uterus, through which the menstrual flow discharged. The woman had suffered great pain during menstruation throughout her life, though she was otherwise a healthy woman.

In an examination before operation with a finger in the rectum and a sound in the bladder I could detect no remains of an adherent vagina—atresia vaginæ proper—though the husband was impressed with the belief that it was atresia vaginæ because she had had diphtheria or scarlet fever when eight years old, and was supposed to have had vaginitis then. The lower part of the vagina was normal in size and appearance; the uterus and ovaries normal; menstruation normal as to time and quantity. When I began dissecting between the bladder and the rectum I found there was nothing but connective tissue. Finally reaching the uterus with my finger, while dissecting around the os, before I appreciated the fact I had made an opening two inches wide into Douglas' cul-de-sac, or into the peritoneal cavity, through which a coil of intestine promptly protruded. I pushed it back and tamponed the cavity lightly with iodoform gauze. She made an uninterrupted recovery; there was no elevation of temperature, no acceleration of the pulse and no pain. She returned to her home two weeks after the operation. You will appreciate the fact that while the uterus came down and the opening I made remained large enough for all practical purposes, yet the tissue between the vagina proper and the uterus was of a character that would probably not be very resisting or very easily dilated, and I thought were this woman to become pregnant there would possible be danger at term of injuring the tissues, and possibly tearing into the peritoneal cavity. I told her husband it were better that she should not become pregnant.

After she returned home she menstrated regularly twice without pain or trouble. She missed her third period, and reported to me that she was pregnant. I then advised that matters be allowed to take their course, and that the husband report to me the result of the labor. The other day I received a letter from him saying that his wife had been delivered, without trouble, of a twelve-pound child, and was doing well. No injury was done any structure during delivery.

I think, all in all, this is a rather unusual case, not because of the partial absence of the vagina, for cases are occasionally met with where there is total absence of the vagina, or absence of any part of it, because of failure in coalescence of the Müllerian ducts; and we may also have absence of the uterus, etc., for the same reason. The case is especially interesting because of the fact that this woman should have given birth to a child so easily, without injury, when the vagina is not attached to the uterus except indirectly by the intervention of cicatrical tissue.

* Reported to the Louisville Clinical Society.

RETROSPECTIVE DIETETICS.

Why Fruit Skins Should Not Be Eaten.—*Health* warns us that fruit skins carry germs, and are no more intended for human sustenance than potato skins, melon rinds or pea pods. Dr. Maria Duncan says: "The bloom of the peach is a luxuriant growth of microbes, that of the grape only less so; and when these skins are taken into the stomach, they find most favorable conditions for their lively and rapid development, which causes the decay of the fruit before it is possible to digest it. This is the reason why many people think they cannot eat raw fruit. If they would in all cases discard the skin, they could derive only good from the fruit itself. Nature provides the skin for the protection of the fruit from the multitude of germs which are ever ready to attack it, as is evidenced when the skin is bruised or broken in any way—the microbes at once begin their work of decay, and the fruit is unfit for food.

Children are the chief offenders in respect to this rule, and should be carefully watched and frequently cautioned. A daintiness as to the condition of fruit should also be cultivated, to prevent its being eaten unripe or too old, on the verge of decay. Remember that it is sweet and ripe fruit, in prime condition only, that is recommended."

Kumyss in Typhoid Fever.—Perhaps the best of all diets in typhoid fever, says the editor of *Modern Medicine*, is kumyss. The lactic acid which it contains will prevent the growth of the typhoid bacillus. The finely divided state of the casein prevents the formation of curds. The carbonic acid is soothing to the irritated condition of the mucous membrane; the taste is grateful to the patient; the acidity stimulates the secretion of the gastric juice, and thus aids digestion—in fact, it seems to fulfil all the requirements of a food specially suited to the condition of a typhoid patient or a patient suffering from any serious febrile disorder.

A similar opinion has been expressed by Dr. A. K. Hills (see MEDICAL TIMES for September, 1894).

Diet in Pneumonia.—The following rules (*N. E. Med. Gaz.*) may be laid down as to feeding pneumonia patients: 1. Give no solid food. 2. Let the food be simple and nutritious. 3. Give food at frequent intervals and in small quantities. 4. Let the patient have all the pure cold water and cooling drinks he may desire. 5. Solid food, given during convalescence, will often cause a relapse.

How to Prepare Malted Milk.—The following method is recommended by the editor of *Modern Medicine:* To a pint of milk add one tablespoonful of malt. The milk may be heated to a temperature of 60°. After that it should be brought to a boiling point, and boiled for twenty or thirty minutes. This will check the further action of the malt. Milk thus treated does not form large, hard curds in the stomach, and agrees perfectly with many persons who cannot digest milk in its ordinary form. This method of peptonizing milk is much preferable to the old way, in which various preparations of pancreatin were employed; these animal substances not unfrequently gave to milk a very unpleasant flavor and odor, and sometimes imparted to it poisonous substances.

Legumine as a Substitute for a Milk Diet.—Bovet (*Bull. Gen. de Therapeutique*, May 30, 1894; *Therap. Gaz.*) Relates four cases of gastric disorder in which a milk diet was not well borne, and where the administration of legumine gave satisfactory results. This remedy was prescribed in as high doses as sixteen drachms a day, in the case of adults. To one patient it was given for three months, to the exclusion of all other articles of food, dur-

ing which time the individual gained four pounds in bodily weight. According to the author and Marines, who has made a special study of the subject, legumine is not only a medicament but a food, owing to the phosphated and leguminous elements which it contains.

Home-Made Beef Powder.—Dr. William R. Huggard, of Davos-Platz, Switzerland, (*Brit. Med. Journal*, June 9, 1894), gives the following as a simple and easy method by which beef powder may be prepared fresh and on a small scale, in any household: Lean beef is cut into small pieces; these are put into boiling fat, dripping or butter for a couple of minutes until the surface is browned. They are then removed from the fat and placed on a strainer for a few moments. Afterwards they are placed in a mincing machine. The resulting mince is placed in a slow oven and dried. The drying process may take from five to twenty-four hours, or even longer, according to the heat employed. When thoroughly dried the meat is quite crisp, and can be ground in a coffee mill that has not been used for any other purpose. In the drying process the meat loses a trifle more than four-fifths of its weight. The beef powder can be taken in various ways—with hot water or soup, with mashed potatoes, with bread and butter in a sandwich, or with a little pepsin in a starch wafer. The writer has given this home-made beef powder with such excellent effect in several cases where there was much difficulty with food that he thinks others may find it useful.

Beef powder carefully prepared according to the directions above given, has an agreeable flavor, and admits of being used like potted meat by persons of delicate or fanciful appetite. By regulating the heat applied in making the powder the albuminous constituents need not be coagulated, but merely dried, and the digestibility of the powder would then be increased. In any case, the finely divided condition would facilitate digestion. If a little pepsin be taken at the same time, it is digested even when the ordinary peptonized foods are not retained. A very good beef tea may be made from the powder by infusing it in moderately hot water. For the preservation of the powder it would be necessary to keep it from contact with atmospheric air and to avoid the access of mites or similar deteriorating influences.

RETROSPECTIVE THERAPEUTICS.

By Alfred K. Hills, M.D., Fellow of the Academy of Medicine, New York.

Menthol in Vomiting of Pregnancy.—Dr. Weill claims that every form of vomiting during gestation can be relieved by a twenty per cent. solution of menthol in olive oil; dose, ten drops on sugar whenever nausea appears.

Sea Air in Diseases of Children.—Leroux (*Brit. Med. Journal*) argues that sea air should not be indiscriminately advised for children. He considers that it is apt to have an injurious effect in cases of heart disease and hereditary syphilis. It is of use in anæmia, except in rheumatic or neurotic patients. As a rule it is of advantage in lymphatic children, but not in those who are highly irritable or liable to inflammatory complications. Scrofulous children suffering from chronic inflammatory complications, chronic conjunctivitis or otorrhea, hypertrophy of the tonsils, or chronic cutaneous affections should be sent to the seaside, unless it is known that they are liable to acute inflammatory exacerbations. On the other hand, weeping eczema, acute impetigo, pruriginous skin affections, and acute painful ear disease are contra-indictions. Children suffering from chronic tuberculosis of bones or glands do well at the seaside, unless there is copious suppuration. Pulmonary tuberculosis is always a contra-indication, and the propriety of sending children with enlarged abdominal or thoracic glands is very open to question. As a rule lupus does not do well. Rickets, if the children are sent at an early stage of the disease, is cured by continuous residence at the seaside for a year or more.

Hydrastis Canadensis for Night Sweats.—Hydrastis canadensis, the *National Medical Review* says, is being used with excellent results for controlling night sweats. If a single dose of twenty or thirty drops of the fluid extract does not suffice, then give twenty-five or thirty drops two or three times daily. In nearly every case the night sweats will be overcome. One writer reports seventy out of seventy-three cases of night sweats in tuberculosis where the remedy afforded certain relief.

Treatment of Cerebro-Spinal Meningitis by Hot Baths.—Dr. Aufrecht (*La Semaine Médicale*, No. 48, 1894; *Med. and Surg. Reporter*) in a case of seemingly desperate cerebro-spinal meningitis obtained remarkable results with very warm baths. The case in question was that of a workman of twenty-six years, at the third week of the disease. For ten days he had been comatose, with subnormal temperature (36° C.), and a rapid and small pulse. Subcutaneous injections of camphor and the internal use of iodide of potash led to no results, while his condition continued to grow worse steadily. On account of the cold and collapsed condition of the patient Aufrecht tried very warm baths. After the first ten baths at a temperature of 40° C., and of ten minutes' duration, he remarked a notable amelioration. The patient came to himself little by little, the stiffness of the nuchal muscles and the strabismus decreased more and more, and after twelve baths, all the morbid symptoms disappeared completely and definitely.

Chlorinated Lime in Pruritus Ani.—A. L. Berger (*Zemsky Vratch*, No. 13, 1893, p. 213; *Times and Register*) speaks well of the treatment of pruritus ani by inserting into the orifice for about one inch a piece of cotton wool soaked in liquor calcis chlorinatæ. When slight burning or smarting is felt, the plug should be extracted, and the anal region washed out with the same lotion, after which the parts should be left to dry spontaneously. The itching is said to vanish immediately, while after a few applications of the remedy any accompanying symptoms, (such as swelling, eczematoid rash of the perineum and scrotum, etc.) also disappear.

Binoxide of Manganese for Irregular Menstruation.—Dr. Ritter, in *Louisville Medical Monthly*, states that as a regulator of menstruation, he has found no medicine the equal of binoxide of manganese. He has used it where the period was irregular in the time for its appearance, coming either too early or too late; where the period was too short, or where it did not appear at all—amenorrhœa. Given in doses of two grains, three or four times a day, it hardly ever fails to correct the trouble.

The Acute Diseases of Children.—In the treatment of acute diseases of childhood the physician is often confronted with the problem of how to reduce high temperature rapidly and effectively, and without injury and discomfort to the patient.

Among all the remedies hitherto proposed, phenacetine still maintains its position as the most eligible antipyretic in pediatric practice. Its popularity is based upon its possession of marked sedative and anodyne properties, aside from its power of reducing fever. Under its influence the restlessness disappears; pain, if present, is relieved, and the child often drops into a refreshing sleep.

In an interesting article in the *Archives of Pediatrics*, March, 1895, Dr. C. G. Jennings states that among all the coal-tar antipyretics, "phenacetine has given by far the most satisfactory results. Clinicians generally agree that powerful effects like cyanosis and dangerous cardiac depression never occur with this drug in reasonable dosage. The beginning dose of phenacetine should never be more than one-half grain for each year of age. This dose may be repeated every hour for one or two doses. Guided by the thermometer or the relief of the distress and the breaking out of a gentle perspiration, the administration of the drug can be arrested when the result is accomplished."

In the treatment of acute nasal and pharyngeal catarrh, tonsilitis, laryngitis, bronchitis, pneumonia and pleurisy in the first stages, the author advises the combination with aconite of one, two or three doses of phenacetine at hourly intervals, at the height of the pyrexia. After the period of engorgement in pneumonia or any grave inflammatory disease, however, aconite should have no place in its therapeutics, and antipyresis should be accomplished by the bath, or phenacetine administered with very great care.

In the pyrexia resulting from the absorption of ptomaines, and the acute indigestion of children, phenacetine, in Dr. Jennings' opinion, is *par excellence*, the remedy. It can be administered with calomel, bismuth or salol, to suit the necessity of the case.

He also states that in the acute inflammation of the cerebral and spinal meninges, tubercular meningitis, leptomeningitis and cerebro-spinal meningitis, phenacetine will be the antipyretic to administer, as it promptly relieves the agonizing headache and neuralgic pain, and induces quiet and refreshing sleep. He has found this remedy very serviceable in the exanthematous fevers. In measles, the high fever attending the onset and acme of the eruptive stage can be well and safely controlled by phenacetine, while in scarlatina of a mild or moderately severe type, the administration of one or two doses when the pyrexia becomes uncomfortable is good treatment. The same experience was obtained in the treatment of variola. Finally, in malarial fevers and in typhoid fever of a mild type, phenacetine, in the author's practice, has best answered the purposes of an antipyretic.

Congelation in Diagnosis and Treatment.—To Dr. Debove is imputed the credit of having first demonstrated, in February, 1884, the therapeutic application of freezing, by means of chloride of methyl. Original investigations made with this agent were reported at the last meeting of the California State Medical Society by Dr. Albert Abrams, as follows:

Freezing with chloride of methyl has been extensively employed for the treatment of various neuralgias, irrespective of the pathogenic diagnosis, as well as in rheumatism and other affections manifested by pain. Its efficacy in properly selected cases of neuralgia entitles it to enrollment among the specific agents in medicine. Only those accustomed to the employment of congelation in the treatment of neuralgia can appreciate its marvelous action in many intractable cases of this affection. The speaker had never witnessed any untoward effects beyond slight cutaneous ulceration in an elderly individual treated for sciatica.

In regard to the rationale of this process, it is most probable that freezing acts as a shock, inhibiting the nerve functions for a variable period. In order to intensify the shock in freezing, I adopt one of the following modifications of the conventional methods of freezing: (1) Anemizing the part to be frozen by means of an Esmarch bandage. (2) Parenchymatous or hypodermic injections of water.

By means of the first modification, congelation occurs sooner, is more intense, and of longer duration.

The second modification, which I have denominated "reinforced freezing," and which can be employed in conjunction with the first modification, is executed as follows: With a large barreled syringe, a sufficient quantity of water is injected beneath the skin over the part to be frozen, or directly into the tissues, until an appreciable bulging is produced. If the spray is now directed on the protuberant part, a lump of ice is formed in the tissues or under the skin.

I have employed congelation as a means of diagnosis for the following purposes:

1. To diagnose neuralgia of central origin from one of peripheral origin.
2. To differentiate neuritis from neuralgia.
3. To locate the lesion in neuralgia.
4. To differentiate many neuralgic affections of the head, and thoracic and abdominal parietes from visceral disease.

To differentiate between a neuralgia of central and one of peripheral origin is conceded to be a difficult matter. I believe, however, that by means of freezing, we possess a valuable aid in diagnosis. If a nerve, the seat of neuralgia, is frozen nearest its point of origin, the pain will disappear if the neuralgia is of peripheral origin, and persist if of central origin. In the absence of spontaneous pain, the painful points in the course of the nerve distribution may serve as guides. Freezing is a specific for all recent forms of uncomplicated neuralgia. Cases in support of this theory were then given.

To differentiate neuritis from neuralgia: Neuralgia of an accessible nerve treated by freezing near its point of exit, failing to yield to repeated applications of the spray, is not a veritable neuralgia, but a neuritis or complicated neuralgia. The speaker said this statement was based in part on a carefully kept record for many years of numerous cases of occipital, intercostal and sciatic neuralgias, reports of two of which were given.

In the treatment of neuralgia, when reinforced freezing is not advisable, recourse may be had to a modified method, which I have denominated "coin freezing." The method is as follows: A coin of varied size is employed, which, having been previously moistened in water, is placed in close contact with the site to be acted upon; the spray is next directed on the coin. After allowing the spray to act for a certain time that is determined by experience, it will be impossible to remove the coin without some difficulty. The advantages claimed for this method are: That the freezing is more thorough, and it can be accurately located. It is less severe than reinforced freezing.

As a means of localizing pain: In evidence of this, two cases were cited. In one, a painful cicatrix amongst small scars, was differentiated. In another, trigeminal neuralgia was traced to a carious tooth. In a third, a neuroma was discovered.

To differentiate many neuralgic affections of the head and thoracic and abdominal parietes from visceral diseases: It is an indubitable fact, to which detailed reference, to my knowledge, has never been made, that neuralgia of the intercostal nerves may be accompanied by visceral symptoms of such prominence that the intercostal neuralgia is overlooked, and treatment is directed toward a presumed visceral disease. Such cases, while presenting a varied clinical picture, are frequently analogous, if only atypically so, to gastric, cardiac, renal, vesical and œsophageal affections. In many instances the system of intercostal neuralgia in the implicated nerves corresponding to the presumably involved viscus are either absent or incompletely pronounced. As a rule, however, vertebral tenderness corresponding to the exit of the nerves can be elicited, and when congelation is conducted over the seat of vertebral tenderness during a paroxysm, the latter is nearly always inhibited. In support of this position several cases were cited.

In conclusion, the speaker said that freezing was not advanced as a catholicon, but as an efficient therapeutic and diagnostic agent in many properly selected cases. Its use may be extended in surgery in the treatment of local tuberculosis, tumors, etc. Parenchymatous injections of water into tumors, coupled with freezing (reinforced freezing), may prove of inestimable value in the treatment of neoplasms. In parasitic affections of the skin he had met with marvelous results in some cases.

The Copious Drinking of Water as a Method of Treating Typhoid Fever.—In the *Revue de Médecine* for March, 1894, Dr. Hector Maillart, of Geneva, concludes an article on this subject (*New York Medical Journal*). As a result of his study of it, he feels convinced that the treatment of typhoid fever by copious drinks may be recognized as a definite method. In order that the treatment may be efficacious, the patient should drink at least from five to six quarts of water daily during the whole febrile period. There is no contra-indication to this treatment; even feebleness of the heart may become a special indication for it. The results are a progressive lowering of the fever, disappearance of the dryness of the tongue and mouth, and pronounced sedation of all the alarming nervous, circulatory, and renal phenomena. This method of treatment has no notable influence on the course or duration of the disease. No unpleasant consequences have been observed to result from the treatment, either during the fever, during convalescence, or after recovery. The treatment, which is very acceptable to the patient, is easily carried out, even in cases in which nervous disturbances are very decided.

A dislocated liver is reported by Buckholz. He reduced the dislocation by gentle pressure, and held it in place with an elastic bandage. Some weeks after the liver was in its normal position.

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A WORD OF GREETING TO THE YOUNG PHYSICIAN.

IT will be remembered that President Garfield was at one time a college professor, and many of his remarks to the students were so terse, vigorous and eloquent that they stand out from the pages of scholastic thought as gems of the purest and most brilliant character. Nothing that he ever said was more full of wisdom, more fit to be woven into the tissues of the brain in enduring memory of every man as he crosses the threshold of student life into the active field of independent thought and active work, than his plea for self-respect. "I do not care much," he said, "what others may think and say about me; but there is one man's opinion I very much value—that is, the opinion of James Garfield. Others I need not think about. I can get away from them, but I cannot get away from James Garfield. He is with me when I rise up and lie down, when I eat and talk, when I go out and when I come in, and it makes a great difference whether he thinks well of me or not." Conscience, after all, is the test of character, and it is hard to so cover it up that its sharp, quick voice will not sometimes penetrate the web of sophistry which the selfish nature may have woven around itself, and be heard in tones of condemnation and warning.

Hundreds of our young men who have spent years in the arduous work of preparation are this month crossing the threshold of their student's life, and entering a profession to which their lives will be devoted and in which they hope to win success. Standing upon the threshold of their life work, looking with eager eye into the future, what will the world say is often the key note of a person's life, and a misapprehension of the fact that whatsoever the world may say now it will sooner or later give its verdict for the right, may lead to a fatal error in formulating and carrying into effect plans which they hope will ripen in a rich harvest of success, poisoned by no self reproaches of errors committed. No better axiom was ever uttered than that of the eccentric and gifted statesman, David Crocket: "Be sure you are right, then go ahead." And to do that, first know thyself. Study carefully the weak points of your own character, and so train your minds as to be swayed less by impulse or sentiment, by that false pride which sees no good unless filtered through orthodox minds, than by that sturdy independence of thought, that clearness of perception, that frankness and honesty of purpose which seizes hold of truth wherever found, making its teachings a part of himself. Remember that orthodoxy is as changeable as the sands of the sea, and what may be the rankest heresy to-day may in a single decade be looked on as the purest orthodoxy. One revelation in science leads to another, and the new facts thus obtained may lead to a recasting of former conclusions, however scientific they may have been at the time.

The experiments with the new element *argon* have brought to light as a kind of Siamese twin another element, *helium*, supposed to exist only in the sun, and the existence of the two, acted upon by electricity, has possibly revealed the cause of the brilliant colors of the Aurora Borealis which paint the northern sky, during the clear, cold winter nights, with tints more brilliant and beautiful than ever entered the mind of the artist. There is no conception to what the daily revelations of science may lead and the power they may place in the hands of the man who is alive to their suggestions and is ready to utilize them in his life work. The current of life sweeps on so rapidly and with such resistless power, that issues which antagonized minds yesterday may soon become things of the past, only to be remembered as a part of medical history, or as tributary streams, which one after the other have lost themselves in the great ever broadening and ever deepening current of enlightened thought.

Be honest in your convictions, judicial in your grouping of facts, independent in thought, ever eager for the right, and your pathway will at least be one of honor, and your success free from self accusation. Remember that the success of one who pulls down that he may rise is at least transitory, and that the weapons of malice, falsehood and slander, which for a time he may wield with power, are very apt to return like the boom-

erang, and smite the thrower. To the army of young men who this month will enter the ranks of our honored profession we would say, never lose your own individuality, be true to yourselves and your own honest convictions, be no man's slave, seek earnestly for the right, be ever zealous for the truth, and so live that when the curtain rises upon the great hereafter, you may say I have tried to do my duty.

AN INDIGNITY TO THE PROFESSION.

THE Medical Society of the County of New York recently held a special meeting, pursuant to the following call:

WHEREAS, a number of instances have occurred in this city where reputable members of this society have been arrested for complicity in malpractice cases without even the shadow of a reason for such action on the part of the police; therefore, we, the undersigned, respectfully request you to call a special meeting of the Society for the purpose of ascertaining the rights and privileges of physicians who may be called to attend cases of abortion, etc.

The President, Dr. Grandin, in introducing the subject, said:

"An indignity has been imposed upon the medical profession by the police and their action in a recent case, which may form a precedent unless a protest is made. We find ourselves between the horns of a dilemma. When called to the bedside of a dying woman, if we do not respond we lay ourselves open to the imputation of inhumanity. If we do respond, and find the woman in danger from what appears to be the result of a criminal operation, we must take one of two courses: Either report the matter to the police and subject ourselves to the possibility of a libel suit, or keep it secret, and in the event of the death of the patient, run the risk of arrest. We are here to protest against the idea that the presence of a medical man at the bedside of a woman suffering from miscarriage is *ipso facto* evidence that he has committed a crime in the matter. It is the midwives and notorious abortionists who, under the guise of specialists, commit these crimes, for which they are so often indicted, but so seldom punished. This crime is on the increase. Are the officers of the law, by their laxity where they should be most active, responsible for this state of affairs? This city should be made too hot to hold abortionists."

Many leading members of the society participated in the discussion which followed, and the legal adviser of the society was requested to furnish an opinion covering the subjects in question.

The society will not probably allow the matter to rest here, but will institute legal measures for the protection of its members.

ELECTROCUTION.

MUCH attention has been attracted to the recent assertion of M. d'Arsonval, a French scientist, that the electric current, as employed in the New York State Prison for the infliction of the death penalty, does not produce absolute death, but only a temporary loss of consciousness, and that the subsequent autopsy is necessary to complete the act. At the request of the authorities, Dr. T. E. Oertel, Pathologist of the German West Side Dispensary, made a most minute microscopical examination of blood and tissues of David Hampton, electrocuted January 28, 1895. The report details the existence of lesions, directly due to the electric force, which must inevitably have produced instantaneous and absolute death, perfectly painless, as the electric current travels faster than nerve force, and that resusitation is absolutely impossible. The wisdom of the death, penalty in any case is still an open question, but so long as death under the law is the penalty for murder, there can be no doubt that electrocution is the most humane.

MALARIAL FEVER.

DR. BENJAMIN BRODNAX, of Brodnax, La., in a paper read by Dr. Attis before the Philadelphia County Society, strongly recommends acetanilide in the treatment of chills and fever. In several hundred cases in which he had given the remedy it has always been successful. If there is time before the chill he gives from one and one-half grains to two grains of calomel in quarter grain doses, half an hour apart, following it, whether the bowels have moved or not, by from two to six grains of acetanilide, according to the age of the patient. The latter remedy should be given from twenty minutes to half an hour before the expected chill. The administration of the drug is usually followed by gentle perspiration, quiet sleep, the patient waking in about half an hour, entirely relieved. Should this effect not be produced, a second dose of the same amount should be given half an hour after the first. If there is no time to give the calomel first it can be given after the effects of the acetanilide have passed away. As an after treatment, ten drops in water are given four times a day of a mixture composed of an ounce of dilute nitro-muriatic acid, and eighty grains of ferrous sulphate. This mixture should be permitted to stand twenty-four hours before being used. Dr. Brodnax's reputation in

the profession as a careful observer and original thinker, invests his suggestion with more than usual weight. Surely in a malarial district he would not be likely to be deceived in the importance he gives to this treatment.

A SIGN OF BREECH PRESENTATION.

WHEN, in a woman who has passed the sixth month of pregnancy, a sharp pain is produced by placing the hand on the fundus uteri, it may be almost affirmed (*La Clinique Intern.*) that there is a breech presentation. The fact is very frequent, although not constant, being present in about seventy per cent. of cases. The pain is sometimes spontaneous. How is it to be explained? According to Pinard, it is due to the irregular distension produced by the rounded mass of the head. If version is performed, the pain disappears.

MR. EDWARD ATKINSON, of Boston, the renowned lay gastronomer, has invented what he calls the "Aladdin oven," which he claims is to revolutionize the art and science of cookery, besides solving the question of living cheaply. Mr. Atkinson has given the free use of his patents to the Department of Agriculture for use in the agricultural colleges. Mr. Atkinson says:

"I have given twenty years of hard labor and careful thought to experiments on nutrition and economy of foods and in developing this oven on an economical, simple basis. I have made experiments in one way and then in another, first going around Robin Hood's barn, then back, then taking a shorter cut, until now I have perfected an oven in which meals can be prepared for 600 at a cost of twenty-five cents for fuel. The toughest meats can be made tender and juicy—the parts of the food which are most often wasted can be utilized in wholesome dishes—giving the maximum of nutrition for the minimum of expense, and a course dinner can be cooked without having to serve in the first course a roasted cook. I had the ovens patented for protection from imitation and to cover the cost of making the invention. They are now in use in many places and they have paid their way, and I wish to put the matter entirely out of my hands. I gave a seven-course dinner to my Whist Club and friends, including oranges and coffee, which cost thirteen cents each for food material. * * * *

"I lately gave a dinner of four courses, soup, fish, meat and vegetables, and mush with molasses for dessert—to nine of the poorer students at Harvard, who want to economize. There were three others. Each had a pound and a half of strong food, and the cost for the twelve was sixty-one cents. We have established the New England kitchens on a paying basis. One of our ladies is making money on five-cent dinners. Mrs. Ellen Richards has been my right-hand helper in this work. I cannot praise too highly what she has done. I have lately been talking with a man who proposes to cope with drunkenness in a practical way. His plan is to open a large New England kitchen and have soup on one side of a partition and lager beer on the other, where the men can take their choice. He believes that if good food and other attractions are offered on the same terms on which beer is now sold, the majority would prefer the soup."

It goes without saying that if this invention proves to be what it claims, it will prove a great boon, especially to poor people, as well as to the intemperate.

DR. WALDSTEIN'S so-called discovery that pilocarpine will cure consumption and cancer, is necessarily making a great stir with the laymen, and, as usual, the highest hopes are aroused, only, we fear, to be dashed by experience.

Dr. Waldstein bases his deductions upon the fact that pilocarpine exercises a profound effect upon the lymphatics and upon the elaboration of white blood corpuscles.

He says that by successive injections of minute doses of pilocarpine he arrives at a gradual stimulation of the lymphatic system. That system increases the white corpuscles in the blood, which corpuscles, as is well established, overcome and cause to be harmless those poisonous elements in the blood which produce disease. Dr. Waldstein claims to go to the fountain whence these white corpuscles spring, and attempts to enliven action and productiveness, when, through disease, these health-giving agents have become too few to keep the blood in proper order.

Dr. Waldstein strongly advises physicians to try pilocarpine in the early stages of consumption, and, indeed, in all diseases where the lymphatic system is involved, because of its stimulating action upon the organs in that system and the consequent production of white corpuscles. He has satisfied himself that pilocarpine, when injected in the veins, forms a trustworthy test for the presence of tubercular disease in man and in animals.

A striking instance of the truth of his reasoning is the case of a man twenty-four years old, a resident of Berlin, who has had a lupus on the back

of his right hand for twenty-two years, and was thought incurable. Relief was immediate after the first injection, and the hand is almost healed. This cure, it is said, has created a sensation among medical men, and some hope that cancer can be cured in the same way.

The use of pilocarpine in phthisis is not new, as it has been employed in small doses for years to relieve the perspiration, and it has been found useful in some cases, and no medical man expects to find in it a panacea for all cases of this class. The remedy is worthy of careful investigation.

THE question, why do epidemics suddenly appear, and after running a more or less fatal course, disappear so entirely as to be remembered only in medical history, suggests to the mind of Dr. Blair as told in the *Medical News*, of March 16th, that they are of cosmic origin, precipitated upon the earth in the meteoric matter and cosmic dust annually falling upon the earth in immense quantities, much of which contains innumerable living germs, some of which have survived the intense cold through which they have passed. Science demonstrates that all terrestrial matter, except as influeneed by igneous action, contains many germs, and it requires no stretch of the imagination to believe that bacteria exist upon other planetary bodies and in the cosmic clouds of interstellar space. Some of these germs might live for a time in their new home and then die out, and with their death that also of the disease which they produced.

Illustrating this statement, Dr. Blair brings forward the fact that the Black Plague, which appeared suddenly in the fourteenth century and carried off nearly fifty-five million victims, was without doubt, a specific germ disease, and spread much faster than the lines of commerce could carry it. This terrible scourge, the like of which has never been known, disappeared almost as suddenly as it came, and is now unknown. On the theory that the plague was caused by cosmic germs, which suddenly rained down upon the earth, its wide spread character could be understood. Dr. Blair reasons that its sudden cessation might be ascribed to the earth swinging out of range of the cosmic dust carrying the germs, which not finding proper environment on the earth, ceased to multiply, and so became extinct. The old type of spotted fever could be accounted for on the same grounds, as well as the epidemic of cerebro-spinal meningitis, both of which, as epidemics, have apparently disappeared. Possibly Dr. Blair's theory may explain some of our local epidemics, the origin and sudden disappearance of which have been involved in such doubt. The most satisfactory explanation of the grip yet given is that it arises from the electric disturbances and vital changes in our atmosphere by the tremendous disturbances in the sun, as shown by the increased or diminished black spots upon the surface. Linked as we are by unseen forces with the whole solar system, as influences still a mystery to us must be constantly acting upon the surface of our planet, Dr. Blair's theory, to say the least, is exceedingly interesting and full of suggestions.

A GIRL of seventeen recently died in Brooklyn, within five minutes after having been inoculated with antitoxin for a mild attack of diphtheria, and the coroner reported that death was due to the effects of the antitoxin injection. Bacteriologists thus far claim that the antitoxin was not the cause of death, but admit that the *true cause* has not been determined.

This method of treatment has certainly received a set-back, no matter what further investigation may show, for no physician would be willing to risk the life of a patient, especially when suffering merely "a mild attack of diphtheria," from which the great majority recover. It is very doubtful whether the *true cause* of death in this case will ever be ascertained. It is a grave question whether it is safe to inject hypodermatically a large volume of any fluid, as there is no way of determining in advance which nerve centers can stand the pressure of such treatment. At the present juncture this method is certainly open to great question, and the friends of the patient must decide as to whether they will accept the risk, without blame to the physician!

THE spectroscope has shown us that the same elements enter into the composition of the sun, the earth, and probably the unnumbered stars, the suns and planetary systems of the universe, but until the discovery of the new element, *argon*, the element revealed by the spectroscope in the sun's rays called *helium* was not known to exist on the earth, and the sun was supposed to have one element which the earth had not. A few days ago Prof. Ramsay, in experimenting with argon to find if there was anything with which it would combine, discovered that the gas which was thrown off from a rare earth found in Norway known as eleveite, when treated with weak sulphuric acid, and which was hitherto supposed to be nitrogen, was not nitrogen but argon, and that the twin gas found with it, which had hitherto been unnoticed, was helium. So we have not only

caught up with the sun in the matter of elements, but investigation of the new elements has led to other discoveries of great interest. Scientists have been unable to account for the brilliant colors in the Aurora Borealis, which on a cold winter night paint the northern sky as they shoot up towards the zenith. M. Berthelot claims that the brilliant colors are due to the new element helium, which until Prof. Ramsay's discovery was supposed to exist only in the sun. In manipulating argon M. Berthelot developed at an ordinary pressure a fluoresent substance, greenish yellow in color, and with a spectrum precisely similar to the Aurora Borealis, from which he concludes that the northern lights are caused by fluoresent matter derived from argon, and engendered through the influence of electrical emenations developed in the atmosphere. And so one discovery opens the path to a host of others, bringing the forces of Nature more and more within the scope of our comprehension and our work.

DR. JACOBS says alkalinity in milk is dangerous, because it shows that the milk has been doctored. Bi-carb. soda is the most dangerous alkali, from the fact that ptomaine producing germs develop in it with great rapidity.

THE boils which frequently occur in persons of a gouty or rheumatic diethesis, are successfully treated by colchicum in the same doses as given in gout or rheumatism. A strong tincture of camphor may be applied externally, and the furuncles covered with pieces of Vidre's red plaster.

IT was many years after the introduction of vaccination as a preventive for smallpox that the idea was carried still further and utilized by Pasteur in hydrophobia. The recent success which has attended the introduction of the antitoxine treatment in diphtheria has stimulated investigation as it regards other diseases. In the *British Medical Journal* of March 2d, Dr. Menzies, of the British Navy, suggests the possibility of obtaining a seropathic antitoxine for syphilis. Human syphilis, he says, is incapable of being transmitted to the horse, and yet it is known that animal is subject to a constitutional affection having a marked likeness to the human disease, without, perhaps, a real identity, which last fact he thinks may show that species of antagonism between the two diseases which may form the secret of success. Notwithstanding but little attention has been paid to the bacteriology of equine diseases, we believe if it was worked out, a correct estimate of the strength and antagonism of this virus might lead to a perfected therapeutic syphilo-toxine.

DR. ALBERT S. ASHMEAD has found in the skull of a pre-Columbian mummy within the Bandelier collection, Metropolitan Museum, New York, found near Lima twelve feet under ground, what he considers unmistakable evidence of a syphilitic lesion. The lesion was easily recognized from its resemblance to those seen in the living body many times in Japan, and once in a post mortem examination of a licensed prostitute.

DR. HAUSMANN, an assistant of Prof. Virchow, declares that he has used the antitoxine of M. Roux and Herr Behring on proved cases of genuine diphtheria, without a particle of benefit and much harm.

The estate of Gen. Benjamin F. Butler has donated for a sanitarium for consumptives old Fort Union in New Mexico, which includes 67,000 acres of good land.

Memoranda Relating to the "Discovery of Anæsthesia."—America has accorded but few public honors to medical students, to physicians or to dentists. But when, in the due fullness of time, and after mature consideration, a public honor, such as has recently fallen to the lot of the late Dr. W. T. G. Morton, "the discoverer of the safe use of ether," at last occurs, it would seem worthy of being noted in connection with the event which led up to it, by the medical press. We refer to the enrolment of Dr. Morton's name upon the base of the dome in the new chamber of the House of Representatives in the State House in Boston, among the selected fifty-three of Massachusett's most famous citizens. "The names have been selected in such a way that each shall either mark an epoch or designate a man who has turned the course of events."

William Thomas Green Morton, M. D., the recent recipient of Massachusetts' honor, was born in Charlton, Mass., August 9, 1819, and died, aged forty-eight, in New York City, July 15, 1868.*

On September 30, 1846, at his office in Boston, he administered sulphuric ether to Eben Frost, and extracted a tooth without pain to the patient.

Securing permission from Dr. John C. Warren, Senior Surgeon of the Massachusetts General Hospital, on October 16, 1846, he administered ether to a patient at the hospital, and Dr. Warren performed a severe surgical operation, the patient remaining unconscious during the operation.

From this crucial demonstration in October, 1846, dates the immediate and universal adoption of the practice of anæsthesia throughout the civilized world. The event marked the advent of a new epoch in the world's history, namely, the epoch of practical painless surgery.

Over Dr. Morton's grave a monument has been "erected by citizens of Boston," including names the most respected and most honored among them, bearing the following inscription, written by the late Dr. Jacob Bigelow, of Boston: "William T. G. Morton, inventor and revealer of anæsthetic inhalation. By whom pain in surgery was averted and annulled. Before whom, in all time, surgery was agony. Since whom science has control of pain."

* See the American Cyclopædia; New York, D. Appleton & Co., 1875. Article, "Morton, W. T. G.," p. 855. See Encyclopædia Britannica. Ninth Edition, Article, "Anæsthesia." See the Century Illustrated Monthly Magazine, New York City, August, 1894.

BIBLIOGRAPHICAL.

NINTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA. With elaborate maps. Benj. Lee, M.D., Secretary, 1532 Pine street, Philadelphia, 1894; pp 843, octavo.

THE Twenty-fifth Annual Report of the Manhattan Eye and Ear Hospital, 103 Park Avenue, New York, for 1894, has been received, and makes an excellent showing for this worthy charity, founded by the late Dr. C. R. Agnew. Indigent patients only are treated.

THE UNIVERSAL HOMŒOPATHIC ANNUAL OF 1894. A yearly report of all the Homœopathic literature throughout the world and a review of Allopathic works interesting Homœopathy. Edited by Francois Cartier, M.D., Paris, France, with fourteen associates; pp. 517, octavo.

"FOOD AND THE JOURNAL OF BALNEOLOGY" has taken to itself a new name, *The Journal of Practical Medicine*," a name much more in harmony with its wide range of work. The *Journal* has always been a favorite among our exchanges, and in its new dress we have no doubt will meet with a still larger measure of success.

URINALYSIS. Including blanks for recording the analysis and microscopic examination of the urine. For medical practitioners, life insurance examiners and specialists. Arranged by Joseph C. Guernsey, A.M., M.D. Philadelphia: J. B. Lippincott Company, 1895.

A convenient book for practical work in this department, and the only one of like character extant.

A BOOK OF DETACHABLE DIET LISTS. For Albuminuria, Anæmia and Debility, Constipation, Diabetes, Diarrhœa, Dyspepsia, Fevers, Gout, or Uric Acid Diathesis, Obesity, Tuberculosis and a Sick Room Dietary: Compiled by Jerome B. Thomas, A.B., M.D., Visiting Physician to the Home for Friendless Women and Children and to the Newsboys' Home; Assistant Visiting Physician to the King's County Hospital; Assistant Bacteriologist, Brooklyn Health Department. Philadelphia: W. B. Saunders, 1895, $1.50.

Reliable, practical and convenient.

DISEASES OF THE HEART AND ARTERIES. By John H. Clarke, M. D., C. M., Edinburgh. London: E. Gould & Son.

Dr. Clarke discusses affections of the heart from a clinical standpoint, in which are given as nearly as possible the cause and the symptoms under the action of the selected remedy.

Dr. Clarke believes that affections of the heart are much more amenable to treatment than is generally supposed. The standing of the author as a writer and practitioner gives great weight to his testimony.

A MANUAL OF THE MODERN THEORY AND TECHNIQUE OF SURGICAL ASEPSIS. By Carl Beck, M.D., Visiting Surgeon to St. Mark's Hospital and to the German Poliklinik of New York, etc. With sixty-five illustrations in the text and twelve full page plates. Saunders' New Aid Series, $1.25. Philadelphia: W. B. Saunders, 1895; pp. 306, octavo.

This little volume brings the subject of which it treats to date, in a most concise and practical form for the student and practitioner in this department. The text is written from the stand-point of post-graduate study, by one who has had experience as a teacher, and the book will be found of great service for ready reference.

MANUAL OF CHEMISTRY. A guide to lectures and laboratory work for beginners in chemistry. A text book specially adapted for students of medicine, pharmacy and dentistry. By W. Simon, Ph.D., M.D., Prof. of Chemistry in the College of Physicians and Surgeons of Baltimore, in the Maryland College of Pharmacy, and in the Baltimore College of Dental Surgery. Fifth Edition, thoroughly revised. With forty-four illustrations and eight colored plates, representing sixty-four chemical reactions. Philadelphia: Lea Brothers & Co., 1895; pp. 502, octavo.

Prof. Simon's admirable work having reached its fifth edition, requires only the announcement that the work has been thoroughly revised and consequently brought down to date. The text is easily read and eminently practical, having in view always where applicable its relation to clinical diagnosis, so important to the practitioner.

COD LIVER OIL AND CHEMISTRY. By F. Peckel-Möller, Ph.D. Author of Veiledning 'ved Bedömmelsen ab Medicintran." "Nogle Norske Forhold," "Et Hundred aars Jubiiæum," Co-author of "Pharmacopœia Norvegica, 1870," etc. London: Peter Möller; W. H. Schieffelin & Co., New York; A. T. Moller & Co., Copenhagen, 1895; pp. 508, quarto. Fully illustrated.

At first thought one would not suppose that so much could be said in so interesting a manner as we find to be the case in this elaborate volume. The text proper begins with an interesting historical sketch of Norway, its people, fisheries, the Lafoten fisheries, etc., etc. In short, the whole subject of cod liver oil is elaborated from beginning to end, and the work will be of great interest to any one interested in this subject.

The text is most scientifically treated from the latest standpoint of chemistry, fully illustrated, and the book is worthy a place in the library of any scientist.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONER'S INDEX. A work of reference for medical practitioners. Editors and Contributors, Prof. Gilbert Barling, M.B., F.R.C.S., and thirty-six others. Thirteenth year, 1895. E. B Treat, New York, $2.75; pp. 648, octavo.

The publisher says: "It has been our endeavor to make this, the thirteenth yearly issue of the 'Annual,' at least equal its predecessors. A glance at the list of contributors, the department they edit and the full index, will, we believe, convince you that the 1895 'Annual' places before the profession a concise, well arranged, practical and helpful volume, giving the advance of medical science in all parts of the world," all of which is borne out by examination. The work has been kept within reasonable limits, so that it forms a volume for handy reference, without sacrificing its completeness.

No medical library is complete without some work of this class, and we know of none which so completely covers the ground at so little expense. We commend the book to our readers.

THE EVOLUTION OF THE DISEASES OF WOMEN. By W. Balls-Headley, M.A., M.D., (Cantab), F.R.C.P. (London). Lecturer on Midwifery and the Diseases of Women at the University of Melbourne; Honorary Physician to the Women's Hospital; President of the Section of Obstetrics and Gynæcology at the Intercolonial Medical Congress, Sydney, N. S. W., 1892; Late President of the Medical Society of Victoria, etc. London; Smith, Elder & Co., 1894; pp. 375, octavo.

The plan of this book, says the author, is to show the states of the sexual relations as they have evolved in the human race, and the position at which they have arrived, with their causations and influences on woman, and to trace these influences through their progressive stages, so far as they have tended in the direction of disease, as well as to indicate the mode of prevention of such causes of disease, and of such disease, not only in the social, but also in the medical aspect, and the author has done his work in a philosophical and elegant diction, delightful to read and practical for study. It is one of the classical books which we occasionally meet, and which are such a pleasure to read. The book will doubtless find a ready field in this country.

THE second volume of "A System of Legal Medicine," by Allan McLane Hamilton, M.D., and Lawrence Godkin, Esq., with the aid of a large staff of specialists, published by E. B. Treat, 5 Cooper Union, completes the work. In our notices of the first volume we stated the fact that so great had been the advance in chemistry during the past decade as well as in every other department connected with our profession, as to render a thorough revision of works on legal medicine absolutely essential. It has come to our knowledge within the past few days that the police surgeon of a neighboring city of 200,000 inhabitants, who is frequently placed upon the stand as an expert, in several important cases influenced the decision of the court through the statement of facts clearly established in these volumes, upsetting old theories which were looked upon as law. The numerous plates and engravings are great aids in illustrating the subjects treated. The two volumes cover the entire ground of medico-legal jurisprudence, bringing forward the most advanced ideas upon every subject treated. Science marches with strong and steady footsteps, and in another decade this work, excellent as it is, may require a revision; but at present it is a necessity to every physician and lawyer who wishes to keep abreast of the times.

SUGGESTIVE THERAPEUTICS IN PSYCHOPATHIA SEXUALIS. With Especial Reference to Contrary Sexual Instinct. By Dr. A. Von Schrenck-Notzing (Munich, Germany). Authorized Translation from the German by Charles Gilbert Chaddock, M.D., Professor of Diseases of the Nervous System, Marion-Sims College of Medicine, St. Louis; Member of the American Medico-Psychological Association; Attending Neurologist to the Rebekah Hospital, St. Louis, Mo., etc., etc. One volume, royal octavo, 325 pages. Extra cloth, $2.50 net; sheep, $3.50 net. Sold only by subscription to the medical profession exclusively. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

This is one of the most important works which has issued from the medical press for many years, and as a contribution to the literature of suggestive therapeutics, in view of the observation of reported errors, stands without a rival. The book owes its existence to observations of the effects of therapeutic suggestions upon individuals subject to contrary sexuality. Of course the line of investigation was into the etiology and pathogenesis of the pervese tendencies of the sexual life, in which way only the door could be opened to a correct comprehension of the therapeutics of the subject.

TWENTIETH CENTURY PRACTICE. An International Encyclopædia of Modern Medical Science. By Leading Authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York City. In Twenty Volumes. Volume II. Nutritive Disorders. New York: William Wood and Company. 1895.

The second volume of this unique work opens with an article on "Addison's Disease and Other Diseases of the Adrenal Bodies," by Sir Dyce Duckworth, of London.

The second article, on "Diabetes Mellitus," is from the pen of Professor von Noorden, of Frankfort, whose studies in metabolism have justly attracted so much attention, both in this country and in Europe. Contrary to what we might expect in a treatise written by a German physiologist and pathologist, this article is intensely practical, sixty pages of the one hundred and fifty being devoted to the subject of treatment.

Following this is an exceedingly interesting article on "Rheumatism," by Dr. T. J. Maclagan, of London, the originator of the salicyl treatment of this disease.

The next article is one on "Gout," by Dr. Henry M. Lyman, of Chicago, the only American writer in this volume—and he has made a worthy contribution to American medical literature. It is not too much to say that the article is one of the most thorough and comprehensive treatises on gout that has ever been written.

"Arthritis Deformans" is the title of the next article, which is from the pen of Dr. A. E. Garrod, a son and worthy pupil of Sir Alfred Garrod.

The sixth article of the volume is one on "Diseases of the Muscles," by Dr. Dujardin-Beaumetz, of Paris.

The closing treatise of the volume is one on "Obesity," by Professor Oertel, of Munich. "Oertel's" is known as one of the most successful methods of treating obesity, and the profession is to be congratulated on having a description of this method and an explanation of its *rationale* from the hand of the inventor himself.

Finally, all this mass of material is made available to the reader by an excellent index in addition to the ordinary table of contents.

MEDICAL GYNÆCOLOGY. A Treatise on the Diseases of Women from the Standpoint of the Physician. By Alexander I. C. Skene, M. D., with illustrations. New York: D. Appleton & Co., 1895.

Dr. Skene never writes unless he has something to say, and that something is always full of interest and instruction to his professional brethren. The science of gynæcology, for it is only within the past two decades it has assumed the character of a science, has in the many excellent treatises which have been published been discussed mostly from the standpoint of the specialist and the surgeon. There is not only room, but a great need of a work upon the subject from the standpoint of the physician, and such a work no one is better qualified to prepare than Dr. Skene.

The author divides his volume into three parts. Part I. deals with the primary differention of sex, development and growth during early life, and the conditions favorable to the evolution of normal organization and the attainment of a healthy puberty. This involves the discussion of heredity and environment, including care in childhood, mental and physical education and culture, together with the necessary attentions during the transition from childhood to womanhood.

Part II. treats of the characteristics of sex, the adaptation of structure to function, the predisposition to particular diseases, and the cause of certain affections peculiar to women. Then follow the functional and organic diseases common to the period of active functional life of woman which naturally come under the observation and care of the physician.

Part III. discusses the menopause, or the transition from active functional life toward advancing years, and the diseases of the latter period. The great object in the first part of the work is to consider fully the ways and means of developing vigorous organizations and maintaining healthy functional life. This necessitates attention to hygiene at all periods of life. In discussing the treatment of disease the author has endeavored to define as clearly as possible the boundary lines between medicine and surgery and their capabilities, so that each be thoroughly understood and intelligently employed. There is a fascination in surgery which often makes it overstep the boundaries of its legitimate work in the performance of the knife when an enlightened therapeutist would have been infinitely better. Dr. Skene is not only a surgeon whose skill is unquestioned, but a physician so thoroughly versed in hygiene and therapeutics as to be able to point out the use of each and all departments to the best advantage of his patients. The work is well done.

A MANUAL OF GENITO-URINARY AND VENEREAL DISEASES. By Buck G. Carleton, M.D. With Venereal Diseases of the Eye, by Charles Deady, M.D., and Vesical Calculus, and External Urethrotomy, by William Francis Honan, M.D. New York: Boericke, Runyon & Ernisty, 1895.

This book brings to the front a new author and a new publishing house, each of which has reason to be satisfied with the other and the profession with both. Dr. Carleton has constructed his work, so far as treatment is concerned, on progressive lines. His wide experience in hospital and private practice and his extensive reading of the literature of all schools, has enabled him to utilize strong points wherever found, in diagnosis and treatment. The general practitioner of all schools will find Dr. Carleton's work full of information, and rich in practical experience expressed in language clear and concise.

SOCIETY REPORTS.

THE NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, HELD ON THURSDAY EVENING, APRIL 4, 1895.

DR. JOSEPH D. BRYANT, PRESIDENT, IN THE CHAIR.

Experiences in the Production and Use of Diphtheria Antitoxine.—Dr. Hermann M. Biggs, Pathologist and Director of the Bacteriological Laboratories of the Health Department of New York City, read a paper on this subject. He stated that since the introduction of antitoxine in this city, about January 1st, 1895, 255 cases of diphtheria have been treated with it, outside the hospital, by physicians of the Health Board. Of these 255, forty died, a mortality of 15.69. In thirty of these cases, treatment was commenced first day of the disease, with two deaths. In seventy-seven, treatment was commenced on the second day, with seven deaths. In sixty-seven, treatment was commenced on the third day, with eleven deaths, In thirty-one, treatment was commenced on the fourth day, with seven deaths. In forty-six, treatment was commenced on the fifth day, or later, with thirteen deaths. Correcting the above figures, that is, deducting those cases that were moribund when the treatment was undertaken, or where complications existed, we have 240 cases, with twenty-five deaths, a mortality of 10 40. Of these 240, 161 were five years or under, with twenty-one deaths, 13 04 per cent. Seventy-nine were over five years of age, and of these four died, 5.06 per cent.

At the Willard Parker Hospital, less favorable results were obtained. Out of 129 cases treated, there were thirty-one deaths, a mortality of twenty-four per cent. There were twenty-four cases in which intubation was required, with fourteen deaths.

Dr. Biggs said it does not seem desirable that any special analysis should be made of the cases which were treated on the fifth day or later, as all of the evidence goes to show that at best, only moderate results can be obtained from the use of antitoxine in such cases; and although occasionally striking results follow its administration even late in the disease, yet such results must be considered as exceptional.

The after effects of antitoxine, the speaker said, are not as a rule serious. Urticaria is the most common; this was observed in twenty-two cases out of eighty-two. Erythema is less frequently observed. In none of the fatal cases where an autopsy was made were there any evidences to show that antitoxine had produced or hastened death. In twenty-one cases out of 129 treated at the hospital, there was albuminuria.

Antitoxine can only be regarded as a specific against diphtheria toxæmia, and to be effective it should be administered early in the disease. It does not reduce the temperature due to a complicating broncho-pneumonia; it cannot restore degenerated heart fibres or altered kidney cells. Its value as a remedy in simple diphtheria is often more conclusively shown by seeing it employed in a single case than by studying a long series of statistics.

Dr. Wm. H. Peck described the technique of the production of diphtheria antitoxine.

Dr. C. H. Peck gave the results of his experience with antitoxine for immunizing purposes.

Dr. George P. Biggs detailed the results of autopsies on persons dying after treatment with diphtheria antitoxine. His conclusions were as follows:

1. Antitoxine has a distinct influence in lessening diphtheritic membrane, even in cases which result fatally.

2. That it has apparently little influence upon cases complicated by extensive broncho-pneumonia.

3. That it has marked influence in checking parenchymatous degeneration of the internal organs.

Dr. Ira Van Gieson detailed the anatomical lesions found in animals which had died during the process of immunization.

Dr. Joseph E. Winters, in opening the discussion, said:

"A few months ago I shared with my colleagues the hope that a specific for the toxine of diphtheria had at last been discovered. My experience during the past three months, a personal experience, dealing with 150 cases at the Willard Parker Hospital, has been to me a sad—an extremely sad disappointment. I am here as the result of that experience to oppose the antitoxine treatment of diphtheria. I have watched these cases for three months and not a single case of septic diphtheria has shown any signs of improvement under the injections of anti-toxine.

"It has been stated that the best results with antitoxine have been obtained in the laryngeal cases. I would like to ask why antitoxine should be used in the laryngeal cases? Where we have a diphtheritic process limited to the laryngeal structure we have no infection. There is no toxæmia; there is no possibility of toxæmia. So long as the process is confined within the larynx, there is no involvement of the lymphatics, and no toxæmia. Why then should antitoxine be used to relieve the stenosis of the larynx due to a pseudo-membrane, be it diphtheritic or not? It does not relieve the stenosis or the dyspnœa; it has not in a single instance shown evidences of a happy relief of the symptoms.

"Statistics seem to form the principal part of the papers we have listened to to-night, but I wonder if you have noticed that a large part of those statistics consist of elimination. They say, we exclude this or that, or we eliminate this or that, but there is no elimination when it comes to the statistics of the cases treated in pre-antitoxine days. Dr. Biggs in his paper did not tell you that in December we had eight consecutive recoveries after intubation at the Willard Parker Hospital, without antitoxine. Such results have never been seen before or since. Dr. Northup, who is here, can tell you that at the Foundling Asylum they had fourteen cases of laryngeal diphtheria last December, and twelve recovered without antitoxine. Dr. Biggs failed to take you into his confidence with reference to another point. It has been stated that the success of the antitoxine treatment largely depends upon the day of the disease when it is undertaken. I can show you by the records which Dr. Biggs holds, that in a group of eight cases two were given the first injection on the sixth and the eighth day, respectively, and both recovered. In the other cases, where treatment was commenced on the second, third or fifth days, all died. I can show you further by the record that the stronger the dose the worse the result; the weaker the dose the better the result. I have seen many cases at the Willard Parker Hospital, which are included in Dr. Biggs' list, in which there was not the slightest clinical evidence of diphtheria; the diagnosis was based on the bacteriological examination alone.

"Two little girls who slept in the same crib were brought in. One had mild diphtheria, the other had a normal throat. The first was given three injections of antitoxine; the other was given one. They both recovered and are included in the list.

Some of these patients received what I call make-believe treatment. They are included in the list.

"A little boy, ten years old, was brought to the hospital in the ambulance. I examined him and found no evidence of any throat trouble. He was sent up to the ward and received the treatment. He is in the list.

One man was brought there who had a slight tonsillitis. He told me he had gone to the Relief Hospital to have a bottle of medicine refilled for one of his shipmates, and because he happened to mention that he had a sore throat he was sent to the Willard Parker Hospital. He is included in the list.

"A strong woman about thirty-five years of age was brought in suffering from what was apparently a mild follicular tonsillitis. She informed me that she had had a number of similar attacks. This woman received a single injection of antitoxine and she is on the list.

"I mention these instances from a sense of duty. I think it is imperative on me, as a man, to make these things known. I could mention a score of cases in which there was not the slightest clinical evidence of diphtheria. I do not question that they were cases of diphtheria bacteriologically, but clinically they were not. I say that the statis-

tics presented here to-night are absolutely worthless. They show nothing.

"Now, with reference to the untoward effects of antitoxine. We have been told about the rashes. We have been told a few other things, but we have not been told about the peculiar range of temperature which is seen in cases of diphtheria treated with antitoxine. In some instances the case progresses favorably for ten days or two weeks, and then the symptoms due to antitoxine infection appear. The child moans piteously; the head is thrown back into a position of semi-opisthotonos; the arms and legs are flexed; the temperature rises to 105° or 106°; the child is restless and does not sleep. What is the outcome of these cases? In adults, they get well. In children, some get well; others do not. In those that recover, the symptoms gradually subside, but there remains a profound anæmia, which is due to the fact that the serum of a horse dissolves human blood corpuscles, and there we have a new element of decomposition. In cases that terminate fatally the high temperature may gradually subside, but the child becomes more and more indifferent, there is partial stupor, the lips are cracked and brown, and death ensues. I have in mind cases at the Willard Parker treated since the introduction of antitoxine, where you have a typical temperature chart of septicæmia, and the pneumonias that have been found at autopsy are probably septic in character.

"Another complication is acute suppression of urine, which has been reported by various observers. In other cases reported a single injection has been followed by convulsions and death. What are these conditions due to? They are due to a fact which has not been considered at all in connection with this subject, namely, the individual susceptibility to drugs of all kinds. We have assumed all along that we are treating animals with an antitoxine. This individual susceptibility explains the unfortunate death of Miss Valentine, of Brooklyn.

"When a bacteriological diagnosis of diphtheria, in the absence of the slightest clinical evidence of the disease, can quarantine a house and separate the member of a family from his relatives and friends, it is a sin against man. When it can force into a hospital for contagious diseases, the helpless, unfortunate poor, there to be subjected to a treatment of which we know nothing, then such a bacteriological diagnosis becomes a crime.

"I oppose the antitoxine treatment of diphtheria because in the cases treated by that method at the Willard Parker Hospital there has not been any evidence, from beginning to end, that it has done a particle of good or relieved a single symptom. I oppose it because it is dangerous in its immediate effects on the kidneys and nerve centers, and in its remote effects on the blood."

Dr. George L. Peabody stated that while his personal experience with the antitoxine treatment of diphtheria has not been extensive, it has, in the main, been very satisfactory.

The discussion was continued by Drs. L. Emmet Holt and W. L Somerset, and then closed by Dr. H. M. Biggs, who stated that he was very much surprised at the remarks made by Dr. Winters, and that many of the statements and inferences made by that gentleman are distinctly untrue. Eliminating nothing, the mortality of diphtheria in New York City this year is ten per cent. lower than it was during the corresponding period last year. The mortality rate in Europe is also lower. There is no reason to believe that diphtheria epidemics are milder in character this year than ever before. In concluding his remarks, Dr. Biggs said that so far as he knows there is to-day not a single distinguished clinician, pathologist or bacteriologist in Europe who has not accepted this new treatment as the most important advance in therapeutics in modern times.

A foreign scientific journal gives the results of recent experiments upon the vocal cords which will prove interesting to singers. A baritone who wished to become a tenor succeeded by a course of inhalation, beginning with benzoin, going on to caffeine and chloroform, and ending with curacoa; while the voice of another was deepened by using volatilized Norwegian tar.

LARGE MULTINODULAR UTERINE MYOMA—PYOSALPINX WHICH HAD RUPTURED INTO BROAD LIGAMENT—APPENDICITIS.*

By A. Morgan Cartledge, M.D., Louisville, Ky.,

Professor of Principles and Practice of Surgery and Clinical Surgery in the Louisville Medical College, etc., etc.

The first specimen presented is a tumor removed February 2, 1895, from a woman forty-six years old; it is a multinodular uterine myoma of rather greater dimensions than we usually encounter. The history was that the tumor was discovered about six years ago. Indications for operation in the case were excessive hemorrhage and attacks of peritonitis, which came on usually at intervals of a month, necessitating her remaining in bed two weeks at a time, reducing her to a condition of invalidism. One point to which I want to direct particular attention in the operative technique is this: How difficult it is for any one to abide by the modern views of even the best hysterectomists; how utterly impossible it is for a man to devise one operation that will meet the indications in all cases of uterine myomata, and how much they differ clinically when we open the abdomen. The tumor which I have shown you almost completely filled the cul-de-sac of Douglas. The conditions were such that the pedicle could not be treated extra-peritoneally; therefore a very low supra-vaginal amputation was made, and drainage established thtough the vagina. So little of the cervix was left in this case that the operation was almost a complete extirpation. Adhesions posteriorly were considerable, and quite difficult of separation. The woman made an uninterrupted recovery, never having a bad symptom since the operation. There is a little ring of cervix left, not much larger than a finger, more to hold the top of the vagina than anything else.

Concerning supravaginal amputation, which is practiced in cases of this character, that is, sewing the peritoneum over the stump of cervix and making a complete closure: I find as a rule there is too much secretion to be taken care of. Naturally the great danger in an hysterectomy is hemorrhage. For ligature material I always use strong silk, and while I have never lost a case where an hysterectomy has been performed in this way, in two there was a prolonged fever as a result of suppuration about the broad ligaments and a blood clot forming just below the peritoneum and above the closed vagina. Dependent drainage established through the vagina is certainly the best procedure in these cases; also I would say that it is better, as I did in this case, to carry the lower ligature down through the vagina, in that way reducing the condition to a vaginal hysterectomy, which is almost without mortality. The other ligatures are cut very short, and covered over with peritoneum. In the last case, where I operated without resorting to low posterior drainage, there was a troublesome fever and a prolonged convalescence. Certainly the method I employed in the case reported to-night is sound practice.

Case II. Another case operated upon February 2d was rather remarkable in some respects, and because of this I will report it in detail. With few exceptions—and I may say none—it was the most wretched case in pelvic surgery that I have ever seen. Dr. Cecil saw the case, and as he is present to-night, I hope he will correct me in the history if I am in error concerning any point. The history of the case is that the young woman had an abortion two years ago, followed by septic fever which lasted some time, reducing her from one hundred and sixty pounds to probably one hnndred and thirty. She remained in bad health from that time until January of the present year, when Dr. Cecil was called to see her in an attack of peritonitis, which seemed to be general, although springing from the pelvis. After treatment by the usual mehods, enjoining rest, hot applications, etc, the temperature subsided for one day, but subsequently became elevated; there was intense pain,

*The Louisville Surgical Society—Stenographically reported by C. C. Mapes for the journal.

general tympanites, and her general condition was very bad. The temperature ranged from 101° to 104° F. and she had the typical symptoms of general peritonitis. I was called to see her in consultation with Dr. Cecil on January 28th. The whole pelvis was one mass, but the most peculiar feature was that this enlargement seemed principally connected with the uterus. The os was patulous and the condition felt very much like an extra-uterine pregnancy. The broad ligaments above the uterus seemed also very much enlarged, especially the right. The uterus itself seemed to be about the size of a three months' pregnancy; the tumor extended up as high as the ubilicus, lying more to the right side of the median line, but was fairly symmetrical—a large mass in the right side with an enlarged uterus accompanying it. The condition was so extreme that I advised immediate operation. The patient was removed to the Infirmary, and the next day the operation was performed.

Upon opening the abdomen of this woman we were struck with the peculiar appearance, suggesting two or three distinct conditions. On the one hand, it looked very much like an extra-uterine pregnancy; then again there was observed a little lower, after the abdominal walls had been separated, or I might say dissected away, an opaque looking mass or collection, three or four inches long and quite thick, looking for all the world like a strangulated ovarian cystoma. It proved to be an enormous pyosalpinx, which had ruptured in the broad ligament. The pelvic structures bound firmly together formed a tumor which reached nearly to the umbilicus. There was fully a pint of very ugly looking pus. On the left side there was also a pyosalpinx containing about two ounces of pus. Owing to the state of affairs no such thing as an ideal operation could be practiced. The whole mass excepting uterus was removed; the intestines were bathed in pus; the cavity was thoroughly irrigated with several gallons of sterilized water, and I then put a strip of gauze right down through the cul-de-sac, making drainage through the vagina, so that we had both upper and lower drainage. The operation was completed in about thirty-five minutes and the patient put to bed in fair condition. She has gotten along since practically without a bad symptom. She had a slight elevation of temperature one day, owing to obstruction of the posterior drainage, but it soon fell to normal and she is now convalescing.

Case III. This specimen was removed from a young man in a fifth attack of appendicitis. The physician who consulted me about the case said that he had treated the patient in four attacks, and when he was called the fifth time, after making an examination he was satisfied there was a formation of pus. The patient had been confined to bed for four days with temperature of 102° F., suffering severe pain referred to the region of the appendix. He was taken to the Infirmary and operation was performed at once. I found that the aprendix had ruptured, the pus forming a small abscess which was completely walled off from the general peritoneal cavity by protecting adhesions. The abscess contained about an ounce of pus. The appendix was tied off, the pus cavity carefully cleansed and the abdomen closed without drainage. On the third day the patient developed a little jaundice which has since passed off, and recovery has been smooth and complete.

DISCUSSION.

Dr. John G. Cecil: Concerning the second case reported by Dr. Cartledge, the one which I saw with him: There is one point of particular interest upon which he did not dwell quite as much at length as might be done, *i. e.*, the very rapid development of the pelvic mass. I saw the patient on Monday, and she was feeling quite comfortable, so much so that I did not regard it necessary to call the next day, and advised her to come to my office as soon as she was able to go out without risk. On Wednesday I was hastily summoned, and found the symptoms had all returned with increased intensity, and what had not been very definite before was now quite apparent—the development of a tumor in the right side, and also with more tympany than there had been previously, tenderness and other evidences of peritonitis being practically the same as during the original attack. The tumor grew rapidly, and within twenty-four hours increased to double its size, showing that all the lymph, and all the tumor, except perhaps a larger portion of the pus, was simply the result of twenty-four or forty-eight hours' time. The growth was so rapid that it added a very difficult point in the diagnosis of a case which even before had been difficult. As indicated by Dr. Cartledge, there was an old pyosalpinx which had been recognized by Dr. Turner Anderson two years before, and he had very properly advised its removal at that time, but the operation was declined. When I examined the patient after subsidence of the original attack of peritonitis, it was a very plain case of pyosalpinx, but when Dr. Cartledge came and we recognized this tumor it added very much to the difficulty of the diagnosis. I believe I made the remark that hereafter I did not propose to make any positive diagnosis before the abdomen was opened.

I was much pleased with Dr. Carledge's method of dealing with this case, especially with the vaginal drainage; it is easy to accomplish, it is safe, and certainly very effective. I believe otherwise this woman would have had not one chance in ten of getting well. The operation was very difficult, especially separation of the abscess from its attachments; the abscess ruptured and flooded the cavity; not that only, but an immense amount of new-formed tissue had to be left, which of course must slough, leaving a cavity that it would have been almost impossible to keep anything like sweet and clean by any other drainage. I agree with Dr. Cartledge that it is the best method for draining such cases, and the result in this individual case has proven it.

In regard to the fibroid tumor: It is certainly a very interesting case. I remember to have seen a most excellent method of dealing with the pedicle in Vienna, by Regnier, under the special supervision of Prof. Crowback, in a case of Cæsarian section, in which the whole uterus was removed. After having done a Cæsarian section he discovered a fibroid tumor. In that case the pedicle consisted of the cervix tied very low down, just as was done in Dr. Cartledge's case, leaving simply a ring. His treatment was a little different from any I have seen practiced here, in that he cauterized with Paquelin cautery that part of the cervical canal which was left, then drew the ligatures through the opening and quilted the peritoneum over the top of the cut cervix and closed the abdomen, which resulted in a very beautiful demonstration to me, it being the first time I had ever seen the operation completed in this manner. Drainage was accomplished with a small piece of idoform gauze and the ligatures through the vaginal canal.

FRENCH MEDICAL SOCIETIES.

ACADEMY OF SCIENCES.

The Vaso-Motor Nerves of the Veins.—From Claude Bernard we have learned the effects of the action of the sympathetic in the neck of the rabbit. From this experiment, all the vessels of the ear, arteries and capillary veins are dilated with blood, but we have not known if the dilatation of the veins resulted from paralysis of their muscular coat or from the increase of sanguineous tension.

M. Rauvier has solved this problem by a very simple process. It consists in acting directly upon the nerves accompanying the external marginal vein, by crushing the vein between the nail and the cartilage of the ear. The most delicate nerves are affected by mechanical action and paralysis, and the vein is dilated above the point of compression, just as is the auricular artery when subjected to similar compression. The veins possess vaso-motor nerves, independent of those of the arteries. This question is of great importance in physiology and pathology. The vaso-motor effects are very different in their action upon arteries and veins. Supposing that the vaso-constrictors of the arteries act alone, there would be a considerable increase of blood in the capillaries and consequent anæmia. If, on the contrary, the vaso-constrictor action was expended upon the veins alone, congestion with stasis would result.

BIOLOGICAL SOCIETY.

President, M. Chauveau.

Pathogenesis of Diabetes.—M. Kauffmann, after establishing the fact that the pancreas exercises a preventive action upon the glycosic secretion of the liver by its internal secretion, concluded that every inhibitory action of the nervous system upon the pancreas naturally increases the glycosic secretion of the liver. If the nerves supplying the liver and pancreas are divided this action is not produced, but it proves how closely hyperglycæmia is connected with the ablation of the pancreas. According to M. Kauffmann, the hyperglycæmia is due to the exciting action upon the liver of the products of dis assimilation resulting from general histolysis.

Serum Therapy Applied to Tuberculosis.—M. Ch. Richet reported that in his experiments upon guinea pigs inoculated with tubercular matter, injections of normal serum delayed death, and those with microbic serum prevented it.

M. Richet also called attention to a fraud practised by certain druggists of Paris, which consisted of the sale of salt water for serum. He added another communication upon serotherapy in syphilis. He employed the serum of the blood of dogs which had received syphilitic blood.

ACADEMY OF MEDICINE.

President, M. Empis.

Rhythmic Tractions of the Tongue.—M. Pinard reported five cases of apparent death occurring at the Clinic Bandelocgue. His conclusions were: 1st. That lingual tractions should be moderate to produce their effect; tractions too forcible caused an inhibition of the respiratory reflex. 2d. That the test mode of practising traction is to use no special instrument, but to seize the point of the tongue with a bit of linen between the fingers. 3rd. That the process is not superior to other methods, especially insufflation, and that it would be culpable to employ it exclusively.

Insomnia.—M. Fluery attributes insomnia to two causes, arterial hypertension or hypotension, the possibilities of sleep corresponding to a medium tension. It is by having no recourse to drugs, but by the employment of simple physical processes, based upon pulse tension, that insomnia may be overcome.

Psychotherapy.—In the statistical review of the clinique of suggestive psychotherapy at Amsterdam, the reviewers oppose exclusive hypnotism, and insist upon the necessity of distinguishing hypnotism from suggestion. But the statistics of cases ameliorated or cured, are not convincing as to the excellence of the method. When we see such observations as for example, an attack of epilepsy in a hysterical woman, cured by a simple application of suggestion, one cannot help thinking that there has been an error in diagnosis. The same where there was a question of a transverse myelitis, complicated with hysteria and ameliorated.

Nervosism or Neurasthenia. Under this title, Dr. Borel puts the special disease of the age, and the different methods of combating it. From the first he claims to be a vitalist and a partisan of the ideas of M. Durand, de Gros, and M. Secretan. He admits no less than twenty-two forms of partial nervosism, associated with the general neuroses, and recognizes as their cause a functional, organic or symptomatic or sympathetic origin. Unfortunately he does not explain why neurasthenia is the disease of the age. This perhaps would have been the only original point of his work, which seems to have been written by a philosopher somewhat identified with medicine rather than a true physician His treatment is merely a resumé of the different methods employed, among them, and contrary to nearly all others, the use of medicines especially.

Dilatation of the Stomach Treated by Gastro-Enterostomy.—Prof. Winimarter, who for several years aided the distinguished surgeon Bilroth in his abdominal operations, believes that at no distant day dilation of the stomach will be successfully treated by the above operation.

Consequences of the Use of Phenic Lotions.—A woman, while cleaning a window, had her finger punctured by a piece of zinc, which penetrated under the nail. She applied at a pharmacy, and one of the assistants gave her a bottle of a phenic lotion, two proportions of the acid to one hundred of pure water, the lotion to be applied to the finger, and continued for some hours. It caused horrible suffering, and she returned to the pharmacy, but was told to continue the lotion. The pains became intolerable, and upon examining her finger, she discovered that the first phalanx was black. A physician to whom she applied said to her: "Your finger is gangrenous, and the bone will fall off. The phenic acid has caused it." In effect, the bone did fall off, and she sued the pharmacist and demanded damages in the sum of 2,000 francs. Dr. Langier, who attended as a witness in the case, declared that the gangrene was due to the prolonged lotions. He stated that two months previously a lady had pricked her finger with a needle and used a lotion of phenic acid, the effects of which were deplorable. By timely application to him, the finger was saved, but very much deformed. In the first mentioned case, the court accorded damages. We have translated the above because of the prevalence of unauthorized and illegal prescribing by druggists and drug clerks in this country as well as in France, and it should be subjected to a penalty in every instance, just as it was in the case above cited.

Enormous Cardaic Development.—A workman, Arthur James Salmon, died at the dispensary of Battersea, London, from an indigestion caused by eating heavily of a pudding of pears. His heart was more like that of a bull than of a human being. It weighed more than twenty-one pounds, and it is difficult to comprehend how, with such an organ, and in a diseased condition too, Salmon reached the age of fifty years without apparent suffering. It was the exceptional dilatation of his stomach, filled with pudding, which prevented the movements of his enormous heart and caused death.

Rupture of the Heart.—It is very rarely that the heart is ruptured. But a case has recently occurred, that of Mrs. Amy Bignold, widow of a well-known naturalist, who suddenly expired at her residence in London, and at the age of eighty-seven years. It was discovered at the autopsy that the pericardium was mottled with blood stains, and a more minute examination revealed a rupture of the left ventricle. Up to that time, only one case of heart rupture had been reported in England, an affirmation to be received with caution.

ACADEMY OE MEDICINE.

Priority of Serumtherapy.—M. Comil read a letter from M. Babès, recalling the fact that in 1889 he had immunised goats against rabbies by injecting the serum of dogs that had been artificially rendered refractory to this disease. The method was afterwards applied to man. It succeeded even in cases in which the inoculation of the virus had preceded the injection. In a word, it contained, at least as respects rabies, the whole theory of serumtherapy.

After an extensive history, M. Lervin investigated the principal poisons now in use. They are of vegetable origin, viz., waba, strychnos, strophanthus, aconite, antiaris, toxicaria. The knowledge of these poisons is of practical interest from the point of view of military surgery in foreign expeditions, and the counter poisons need to be thoroughly investigated. M. Barthelot recalled the fact that the animal poisons are also employed. Many of them occur frequently in the excrement of the horse, an interesting fact in connection with tetanus. M. Lagneau showed that the knowledge of animal poisons was very ancient. Aristotle speaks of a poisonous extract from the stag.

M. Nocard presented a series of memoirs showing especially, first, that the origin of tuberculosis is always one of contagion and never hereditary. Second, that the inoculations of tuberculine have a certain value in diagnosis in animals, and are of real practical utility.

SURGICAL SOCIETY.

President, M. I. Lucas Championnière.

M. Surmay offered a new process of treatment for deviation of the septum of the nose.

Otitic Abscesses of Intracrainal Origin.—M. Picqué said that out of a hundred intracrainal abscesses more than

fifty are of otitic origin. This is a large proportion, and compelled him to maintain the opinion he had advanced. M. Picqué then essayed to refute the arguments of M. Marchant, who had opposed and contradicted him.

Naso-Pharyngeal Polypi.—M. Berger reported upon an opinion sent by M. Calot, Berk sur Mer. It related to an operation for naso-pharyngeal polypus in a child by the nasal passage, and by the method employed by M. Ollier, of Lyons. The arch of the palate was not touched. The difficulty of respiration was intense, and abundant hemorrhages had produced great anæmia. The operation was easy, despite the flow of blood—tampon left in place for twelve hours. There has been no recurrence for two years and a half. M. Calot thinks that it was a case of sarcoma, but there was no histological examination. M. Berger was not in favor of the nasal passage, as by it a troublesome cicatrix is retained. Much better to remove the jaw when the polypus has attained a certain size. M. Picqué: To effect the ablation of these tumors by the maxillary operation, it is not necessary to remove the entire bone. He resects only the central portion with the chisel and mallet, and draws the tumor through the orifice thus obtained. In this way he does not touch the floor of the orbit, nor the palatine arch, and there is no subsequent facial deformity. M. Kirmisson was in favor of proceeding slowly, and M. Calot's case proves nothing against this. The nasal operation of M. Ollier was not to be recommended, and the maxillary was only exceptional. In ordinary cases the palatine was the best. M. Bazy cited a case of naso-pharyngeal polypus, somewhat similar to that of M. Calot, but the patient, though operated upon in 1881 by M. Richet, died of hemorrhage. He tore away the lower surface of the cavernous sinus. There was doubtless an intracranial prolongation.

Peri-Umbilical Phlegmon.—M. Marais treated a case of peri-umbilical phlegmon which probably originated from a concretion of hairs and the debris of epithelium. The patient was diabetic. In this case the phlegmon was peri or supra-umbilical, which caused it to resemble the sub-umbilical phlegmons of Heurtaux. The first was clearly sub-cutaneous. The other, on the contrary, sub-peritoneal. The phlegmon of Heurtaux was not denied, but it was believed to be of less nosological importance than that located in the sub-cutaneous fatty tissue. M. Marchand cited a very marked case of Meurtaux's phlegmon, which was both sub-peritoneal and sub-umbilical. The patient had a chronic blennorrhœa, and gonococci were found in the pus of the phlegmon. This fact, difficult of explanation, seemed to prove that there were sub-umbilical lymphatics situated behind the peritoneal serous membrane. M. Segond cited two analogous cases. In the two there was an umbilical concretion—in one the abscess was so extensive that it was thought to be from hepatic suppuration, but the pus located itself behind the recti muscles.

M. Richelot remarked that of the six cases reported by Heurtaux, at least one was tuberculous.

M. Tuffier said that sub-umbilical phlegmon might be due to appendicitis. M. Tillaux persisted in believing that there were two kinds of umbilical phlegmon, as had been already indicated.

Fibro-sarcoma of the Foot.—M. Tillaux reported a case of M. Broca. It occurred in a child of six years, and consisted of a painful fibro-sarcoma of the sole of the foot. It was operated upon by a surgeon, and the tumor adhered to the sheath of the tendons; a year after it returned. The tumor was then enlarged and made the total amputation of the foot necessary. Histological examination revealed its fibro-sarcomatous nature.

Massage in Acute Inflammations of the Annexæ.—M. Pozzi exhibited a specimen which proved that excessive massage might be followed by disastrous consequences in women suffering from inflammation of the annexæ. In effect, as a result of massage, there was suppurative peri-salpingitis in a woman affected with annexitis. Though massage may produce dangerous effects in some cases, it was often excellent in chronic cases. M. Bouilly approved of the remarks of M. Pozzi. It was necessary to inquire into the ill effects of massage in acute inflammations. M. Lucas-Championnière said that in some cases massage was productive of serious injury. M. Richelot: That is very evident. M. Monod: It should, however, be remembered that massage gives marvellous results where there is no suppurative annexitis. It is then only a question of indication.

THERAPEUTIC SOCIETY.

President, M. Ferrand.

Anti-Malarial Action of the Chlorhydrate of Phenocole.—M. Vogt read a paper upon the action of this remedy. A crystalline powder, white, neutral, very soluble, with a salt-sweetish taste, easily disguised. This salt is powerfully anti-febrile and anti-neuralgic, and absolutely harmless. Albertin, of Bologne, was the first to use it for paludism. Since then, the Italian physicians, and those of Ferreira and Brazil, have used it constantly. Administer 2 to 2¼, 3 or 5 hours before the attack, in powder or liquid.

The Pharmaceutic Modes of Preparation of Quinine as a Prophylactic of Malaria.—M. Patein read a report of the commission appointed to study this question in connection with an expedition to Madagascar. It was concluded that the solutions are preferable in the treatment of the attack. That as a prophylactic, the chlorhydrate of quinine should be preferred. Its activity is greater with less volume. The commission rejects the use of the compressed tablets, which are dissolved with difficulty, or not at all, and gives the preference to gelatinous capsules or pills, easily made, and consisting of 15 centigr. twice daily.

Chloroformic Digitaline, and German Digitaline.—M. Bardet read a report comparing these two products. In 1889 he established the identity of the crystalized digitaline of Nativelle and the digitoxine of Schmiedberg. The Belgian professor Masius considered the digitoxine as three times more active than digitaline. From experiments just made and approved by M. Frank and M. Hondas, who have investigated the principles of digitalis especially, M. Masius' opinion seems correct. The crystalized digitaline of Nativelle is an invariable and well-defined alkaloid. The digitaline made by Merck is a mixture of digitaline, digitaleine and of an uncertain glucoside, which is analogous to strophantine, and possesses extraordinary toxic properties. It is necessary to be advised of these variations of the digitoxine, and in the administration of such active principles, preference should be given to those products that are well defined, such as the crystalized chloroformic digitaline.

BIOLOGICAL SOCIETY.

President, M. Féré.

M. Marmorek presented a paper upon the immunizing properties of serum against the streptococcus. A product of this kind has been sought for a long time, but it was difficult to obtain it in cultures sufficiently virulent to immunize the animal selected with very weak doses. The author succeeded in increasing the virulence of the microbe by successive transmissions of it from rabbit to rabbit, and thus abtaining immunizing cultures for the rabbit, and giving to the serum of inoculated animals immunizing and curative properties against streptococcic infection, at least in the rabbit.

M. Roger recalled to the society his old researches upon the same subject, and indicated that he had immunized the horse, whose serum was curative for the rabbit, and perhaps for man; he also reported an observation taken from a woman attacked with puerperal fever.

MM. Hazem and Parmentier, in answer to recent criticisms of the descriptions they had given of certain details of the pathological histology of gastritis, exhibited a series of preparations of gastric sclerosis, very well preserved, and in which the phenomena of cadaveric autodigestion were reduced to a mimimum.

M. Mouret repeated the experiment of M. Bernard upon atrophy of the pancreas following the injection of oil into the canal of Wirsung, and proved that the gland so treated became atrophied by sclerosis without the appearance of diabetes.

M. Berdal noted the employment of the sulphate of

copper for coloring the cells of the nervous centers fixed by alkaline bichromates.

ANTHROPOLOGICAL SOCIETY.

The meeting of the Society was principally occupied with questions and disputes of priority. The most interesting was that of M. Durand, of Gros, who claimed that since 1853 he had proclaimed that an individual was not an unit, but was composed of as many animals as the body contained cells, and hence the theory of polyzoism and polypsychism, or many lives and many souls. A being is a concentration of many distinct animals. This idea was accepted by Claude Bernard and Perrier. Herbert Spencer made it the fundamental basis of his philosophic theories. M. Durand-de-Gros complains bitterly of his not having been recognized. May not the same idea have come to these different authors without their being conscious of the work of Durand? For, once that the organism was discovered to be composed of cells, the human intellect would necessarily imply the polyzoic theory.

M. Durand recalled some of his other works, especially his linguistic observations. In Spain and the Garonne, the *b* soft has replaced the Latin *v*. This induces the belief that it is due to the preservation of the last vestige of the Iberian tongue that is preserved in the Basque—a second observation. M. Durand cited other interesting observations of linguistic peculiarities.

M. Zaberowski demonstrated the penetration of tribes into meridional Russia, coming from Europe along the Russo-Scandinavian glacier. He entered into the description of the most ancient pre-historic monuments of meridional Russia. These are monuments of the Kourganes, of neolithic sepulture; and the material of these tombs belongs to the Northwestern region of Europe. The race, whose remains were found, was originally from Central Europe, and was the Galato-Kimric. J. A. C.

CORRESPONDENCE.

"SIMILIA SIMILIBUS."

IS IT RATIONAL PRACTICE?

The objection has at times been raised to the use of the "rule of similars" in the treatment of disease, that it tends to the establishment of an empirical practice, while the aim of all medical men should be directed toward the upbuilding of a system of scientific medicine. In answer to this it may be stated that, while admitting that the formula *similia similibus curantur* has not been established as a scientific law, yet if its application—empirical though it may be—leads to a knowledge of facts, it is a great step in advance in the establishment of a scientific therapeutics.

That the various works on "Homœopathic" materia medica and therapeutics contain many facts of great use to a physician in the treatment of disease is undoubted, or if doubted, a year or so of their practical application will almost certainly tend to remove that doubt; and whether it be accepted as a general principle or not one cannot but be impressed with the fact that there are many cases of drugs acting curatively in conditions very similar to those caused by that drug in health, be it explainable on the hypothesis of "substitution," the "dual action of drugs," or what not.

The danger lies not in the use of empirical facts, but in resting content with these, instead of attempting to define the exact correlation between drug action and disease, for as Dr. Sharp has said, "like a hand too full of beads, they become scattered and lost for want of a binding string." How diligently and earnestly he attempted to discover and supply that "string" we know; whether the single string sufficiently binds together all the facts or not, is hardly within the province of this paper to discuss.

We are told that Archimedes, having noticed that the water overflowed a full bathtub on his getting into it, after, we presume, a process of inductive reasoning, immediately set out to put his discovery to a practical use in testing the purity of the gold in the crown of King Hiero. It was an extended process of experimentation and induction which led to the formulation of the law of "specific gavity." Undoubtedly we are justified in making use of empirical knowledge in our treatment of disease.

Dr. Conrad Wesselhoeft speaks of *similia similibus curantur* as an empirical fact. But what is empiricism? Knowledge gained by experience. Now, if knowledge so gained leads us on to further discovery and greater experience, we have bridged the gap between empiricism and rationalism, and there is but a step between rationalism and science. Rationalism deals with probabilities; science with certainties.

Lauder Brunton, in the "Introduction" to his "Materia Medica and Therapeutics" says: "Therapeutics may be either *empirical* or *rational*. By empirical we mean that drugs are tried hap-hazard or with little knowledge of their action in some cases, and being found successful, are again administered in other cases which seem to be similar. Perhaps the best example of the empirical use of a remedy is that of quinine in ague."

The "rule of similars" can hardly be said to be empirical in that sense of the word, for the mere fact of there being a rule does away with the element of hap-hazard; it is empirical in the sense that being found to act in some cases it has been tried under similar conditions in other cases, and has been found successful.

Now, this application according to rule brings it within the sphere of rational therapeutics.

Some may say that there is no such rule. The only answer we can give is, try it. You will find that there are limitations, which, at present, you may possibly have to fix for yourself; nevertheless, take it as you find it warranted by facts and try it. Try it carefully and critically, look facts in the face; nay, wrestle with them, accept the truth as it is revealed to you and abide firmly by it. Do not waste time hunting for the "absurdities and errors" of the *system*, they will bother you enough unsought; dive for the pearls.

"Rational therapeutics," says Lauder Brunton, "consists in the administration of a drug because we know the pathological conditions occurring in the disease, and know also that the pharmacological action of the drug is such as to render it probable that it will remove or counteract these conditions." As an example is cited the use of nitrite of amyl in angina pectoris. In this disease we have increased tension within the heart and blood vessels, while experiment has shown that nitrite of amyl lowers the pressure of the blood in the vessels in the healthy animal; "we therefore give it in angina pectoris with the expectation that it will diminish the tension and remove the pain, and we find it succeeds."

Continuing he says: "But this example shows us only the first stage of rational therapeutics. We have removed by a remedy the pathological condition which immediately gives rise to the pain and danger of the patient, but the antecedent alterations of the heart, blood vessels and nervous system which led to the occurrence of the pain, are unaltered by the remedy. In order that our therapeutics should be completely successful, we must seek still further for something which will restore the circulation and nervous system to its normal condition and bring the patient back to a state of perfect health."

Let us see if anything is recommended for this purpose.

In the Clinical Index, under "Angina Pectoris" we find: "Arsenic to prevent paroxysms" and "phosphorus during the intervals to lessen tendency." Why give these drugs? They tend to cause fatty degeneration of the heart and blood vessels, a condition often associated with angina pectoris, and would therefore seem to be contra-indictated. They are said to be "nerve tonics" and "alteratives," but these are terms which remove them from the sphere of pharmacology into that of therapeutics, and consequently from rationalism to empiricism. It is true that arsenic is said to lower blood pressure in animals, and this

may account for its beneficial action. Again we find recommended "strychnia, sometimes useful in mild cases in very small doses." What is the rationale of this action? Strychnia is a vascular tonic in small doses; *i.e.*, it causes contraction of the arterioles and increases blood pressure. How then does it lessen it when found in disease? Guided by the rule of similars we would probably be led to give arsenic in purely neuralgic cases; in those complicated by organic disease of the heart or blood vessels, phosphorus or arsenic; in those where vaso-motor or muscular (?) spasm was the apparent cause, strychnia. (Cuprum and some of the snake poisons I merely mention here; they are not noted in Lauder Brunton's "Clinical Index" in this disease.) During the paroxysm itself we could probably not do better than to obtain the rapid relief afforded by nitrite of amyl.

Thus we have a second stage of rational therapeutics, and in it a well defined "rule of similars" might appropriately find a place.

In the digestive tract, we have small doses of arsenic recommended in certain forms of diarrhœa, calomel in other forms; we have half drop doses of tincture of opium acting as a laxative in certain cases of constipation; fruit is useful in dysentery although it acts as a laxative in health.

Pilocarpine and Dover's powders have been found to act beneficially in the night sweats of phthisis, yet pharmacologically they are classed as diaphoretics.

In the section on expectorants Lander Brunton writes: 'Alkalies, such as carbonate of soda, injected into the blood, lessen, or in large quantity completely arrest, secretion of mucus from the trachea.

"This experimental result is in contradiction to the teaching of clinical experience, which shows us that alkalies increase the amount of secretion, and render it more fluid. The results of clinical observation are quite as certain as those of Rossbach's experiments."

Thus again we have an apparently opposite action in health and disease.

These few examples serve to suggest that we must look beyond the antipathic application of the physiological action of drugs in the treatment of disease, and also to point out that the "rule of similars" may be employed with some hope of success, and that it is therefore rational.

That these facts have been explained by Lauder Brunton is admitted, but that is not the question. Would our knowledge of the physiological action of these drugs have led us to employ them in the cases mentioned?

Hahnemann is said to have prescribed camphor, cuprum and veratrum for Asiatic cholera without having seen a case, but merely from having a description of the disease; with what results those only who have tried the remedies can say. That could hardly be called an empirical practice, but rather rational; for with a knowledge of disease and of drugs he was able to apply the drug action to the disease in a certain manner and in expectation of a certain result. How much better able should we be than Hahnemann to encounter disease, when we consider the advance made in scientific investigation during the past century, and the vast accumulation of facts, both relating to disease and to drug action.

Thus we claim for the "rule of similars" a place in rational therapeutics. EDGAR A. GRAFTON, M.D.

Montreal, April 3, 1895.

In a discussion on "Thyroid Feeding on Obesity," in "The Society for Medical Progress of the West Side German Dispensary," the consensus of opinion was that the practice was dangerous, even in myxœdema. It was said that ten grains a day on a full stomach gave the best results.

The Medical Board of the Metropolitan Hospital, Blackwell's Island, announces that Saturday hereafter will be known as "Hospital Day;" that surgical operations, as far as possible, will be reserved for that occasion; that members of the Board will be in attendance at three P. M. for clinical purposes.

Physicians and students desiring to attend these clinics, should apply to the Secretary, Dr. Alfred K. Hills, 669 Fifth avenue, for passes.

TRANSLATIONS, GLEANINGS, Etc.

Novel Treatment of Fracture.—The *Maryland Medical Journal* says: "Cases of delayed bony union have long since been treated in this country by cutting down on the seat of fracture and wiring or screwing the broken parts together. Now, Mr. Arbuthnot Lane (*British Medical Journal*) advocates in these days of bold antiseptic surgery, to cut down on every oblique fracture of the leg, expose the fragments, bring them into accurate apposition, drill holes and fasten by steel screws. He says there is immediate relief of pain by this method, absence of tension and discomfort due to extravasation of blood into the tissues, and shortening of the period of treatment. He asserts that this is especially to be recommended in the laboring man, to whom time is money. He does not tell us what becomes of the steel screws.

Epistaxis in Children.—From an editorial in the *Homœopathic Journal of Obstetrics* we learn that the subject of juvenile and hereditary epistaxis has been studied by Professor Verneuil, who finds that it has a relation with phthisis. In nearly all cases in which he was able to investigate the family history, he found that children suffering from epistaxis were descended from families in which phthisis was a frequent disorder. It has also been noticed that children who are subject to epistaxis are, later in life, arthritic, and, as adults, prone to headaches and early obesity. Children subject to epistaxis later in life, are apt to develop a tendency to hemorrhage from other organs, especially the lungs, anus and uterus, and this hemorrhage may occur even in the absence of any organic lesion. It has also been noticed that persons subject to epistaxis in their earlier years apparently outgrow it at puberty, and then it suddenly returns at about the age of sixty, for reasons still unknown.

Soap as a Germicide.—During the cholera epidemic, says *Modern Medicine*, experiments were made for the purpose of discovering the best germicide for sterilizing the water to be used for bathing. It was found that ordinary toilet soap, in the proportion of 2.5 to 1,000 parts, will kill the cholera bacillus in ten or fifteen minutes. Soaps containing salicylic acid and carbolic acid are found to give no better results than ordinary toilet soap. A bath of thirty gallons of water would require a little more than one-half pound of soap. A gallon of water would require two and one-half drachms, or a little more than one-fourth of an ounce.

No Such Thing as Light.—Professor Dolbear (as quoted in *Food*) says that it is seriously proposed to banish the word "light" from physics. Physicists no longer recognize three different kinds of ether waves. The same rays that can produce vision can also heat a body and do photographic work. All ether waves have similar characteristic properties. There are no peculiar waves which can be called light. The tanning of the skin, the darkening of newly laid shingles, the coloring of apples and other fruits, is all a photographic process. In continuing his interesting article in the *Cosmopolitan*, he says: "Since it has been shown that ether waves of all lengths have an electro-magnetic origin, it has been apparent that all the effects of light can be duplicated with suitable electric apparatus. Lay a coin, like a half dollar, on a plate of glass and let a few sparks from an electric machine fall on it; remove the coin, and the glass surface will not appear to have been affected; but if it be breathed on, the image of the coin will at once be seen, and that it is really engraved on the glass surface is evident, for it will not easily rub off. If a piece of photographic paper takes the place of the glass, it will have the imprint of the coin made upon it. It is not needful to have the sparks fall upon the coin, for, if it be enclosed in a dark box brought near to an electric machine having short sparks passing between its knobs, the ether waves set up by the latter

will be sufficiently short to affect the photographic surface, which may be developed afterward in the ordinary way. So it is actually possible to take a photograph of an object in absolute darkness, with the ether waves working an electric machine. Not much has yet been done in this direction, but it is a new clue to chemical possibilities, and one may confidently look forward to the time when the qualities and colors of surfaces of many things will be changed to suit the taste by an application of electric waves of suitable length to bring about the proper chemical reactions, and an electric machine may become a necessary adjunct to the apparatus of the photographer."

A Popular Fallacy.—The following from the *Reflector*, as quoted in the *Medical Age*, will be endorsed by every reflecting physician: While many parents think it better that children should have some diseases when young, such is an error. There is not one of the so-called children's diseases, except perhaps chicken pox, but is liable to be followed by serious consequences, besides being sometimes fatal. In every way it is better to avoid all contagious maladies, and it is quite possible that in adult life persons may escape these diseases altogether, or if they have them, it may be in a lighter form. The popular idea that grown persons have these diseases harder than children is fallacious. Adults are better developed and have the judgment necessary to co-operate in the treatment, which is lacking in children.

Ingestion of Sponge.—Dr. C. Raimondi states in *La Riforma Medica* (*Medical Age*) that he has fed guinea-pigs, kittens and puppies with bits of sponge prepared in various ways, wet and dry, cooked and raw, fried in oil, cut in large pieces and small, but never observed injurious effects. In all cases the sponges were passed in from one to three days after their ingestion—unchanged in the carnivora, but slightly acted upon by the digestive fluids in the herbivora. The popular belief in the injurious action of sponge, which is even shared by some physicians, is wholly erroneous. Of course, if a piece of sponge were forced into the larynx it might produce suffocation, but in the digestive tube it is innocuous.

Extraordinary Temperature.—Richet recently called the attention of the Biological Society of Paris to a remarkable case of hyperpyrexia in a woman suffering from intermittent fever. While the temperature in the morning was no higher than 102° F., in the evening it ascended to 113°. Upon two different occasions it rose to 114.8°. The utmost care was used to avoid deception. Moreover, under the influence of quinine it fell to 96.8°, and when the quinine was suspended the mercury rose again to 118.8°. After a fresh exacerbation of longer continuance, the temperature fell to normal and the patient recovered.

Foreign Bodies in Nose and Ear.—The employment of the crochet-needle and "the ubiquitous hair-pin" having recently been recommended by physicians for the removal of foreign objects from the nasal and auditory passages, the editor of the *Medical Age* is moved to protest as follows: When will practitioners learn that the use of uncertain, abnormal, and dangerous—not to say severe—methods, is always highly reprehensible, especially when there are others available, much more precise and simple? We will venture the assertion that hundreds of cases of injury to ear and nose have had their origin in the pernicious use of surgical or pseudo-surgical practices by the laity, and by medical men devoid of that chief therapeutic attribute, common sense.

As in the instance reported by Dr. Fowler, the foreign object, swollen by absorption or moisture, often proves difficult of seizure by forceps. In such cases it must be manifest that repeated attempts at direct removal can result only in pushing the object further back into the cavity until it meets some resistance whereby it can be impacted. The danger to the ear is incalculable; in the nostril the body may be lodged among the turbinated bones or pushed into the throat.

Whether in nose or ear, foreign bodies, in the majority of instances, may be readily removed by the use of a hard rubber ear-syringe, of the capacity of one or two ounces: In the ear by directing a current of warm water to one side of the canal, whereby the current passes the object, fills the space behind, and forces it outward: In the nose the same method may be readily applied by forcing the current of fluid through the opposite nostril, the head being slightly inclined downward—the theory being precisely the same as is taken advantage of in the treatment of catarrh by Thudicum's douche.

A Sure Sign for the Diagnosis of Small Effusions in the Peritoneal Cavity.—Dr. Salvador Garciadiego, of Guadalajara, Mexico, in the *Medical Record*, January 27, 1894, says:

"The reading of an article which appeared in the *Journal de Médicine et Chirurgie* of Paris, in which the early practice of the operation of laparotomy is recommended in the treatment of intestinal invagination and internal strangulated hernia, adducing as a sure sign of their existence the detection, by means of percussion of the lateral dependent walls of the abdomen, of a small sero-sanguineous effusion which generally accompanies the beginning of said lesions, suggested to me the idea of publishing a much surer and accurate way of detecting the presence of the fluid, which is at the same time applicable even in those cases in which the existence of extreme tympanites would render percussion useless as a diagnostic measure.

"I attribute some practical importance to the publication of this method, because in the article quoted early surgical interference is advocated as justified by the existence of the said effusion and its clinical detection; and if this symptom really is of such an important diagnostic value, it is very important that surgeons should have at their disposal reliable means of discovering it with complete certainty.

"The method I employ, and which can be appreciated by any practitioner who may wish to use it, is as follows: Placing the patient on his back on an inclined plane of 45°, the index finger, well greased, is introduced into the rectum in order to examine the posterior peritoneal fold in men; in women, the posterior vaginal cul-de-sac is examined.

"If any effusion exists in the peritoneal cavity, no matter how small it may be, gravity will cause the liquid to descend to the most dependent parts, and in consequence of the position in which the patient is placed, it will gravitate toward the posterior part of the pelvic portion of the peritoneum. The exploring finger will clearly discover fluctuation, and to make sure that it is produced by a peritoneal effusion, it will suffice to change the patient's position, while the surgeon's finger continues in contact with the postero-superior part of the rectum, and the liquid will be observed to change to the side on which the patient lies in his new position, and fluctuation immediately disappears, because the fluid which produced it has changed place and cannot any longer be recognized by the exploring finger. If the patient is again placed in the former position, the fluctuation is at once felt by the examiner's finger, a circumstance which permits the surgeon to make sure, in the most positive and satisfactory way, of the existence of an effusion.

"Practice has shown me the certainty, value and importance of this diagnostic sign, and this is the reason why I believe it my duty to publish it, so that it can be employed by other practitioners who can judge of its merits.

"In cases in which pain or any great susceptibility on the part of a patient renders the rectal or vaginal examination difficult, an anæsthetic can be used."

Digestion in a Dog Without a Stomach.—MM. Carvalho and Pachon (*Archives de Physiologie*) have recently reported the results of a prolonged and careful investigation of the digestive process in a dog which had been deprived of his stomach, the stomach having been removed by the method of Czerny. It is very interesting to note that so far as could be observed, the dog deprived of the stomach remained in as good health as before. When fed

on a diet of bread and meat, the digestive process was apparently completed in a perfectly normal manner, as shown by the microscopico-chemical examination of the fæces. In some experiments instituted for the purpose of determining the relative digestibility of cooked and uncooked meat, it was observed that the undigested residue was twice as great with a diet of uncooked meat as when the meat was cooked.

Other interesting series of experiments were undertaken for the purpose of determining the antiseptic powers of the intestine, the dog being fed upon meat which had been allowed to decompose for twenty-four hours at a temperature of 100°. It was found, contrary to expectation, that the dog apparently suffered no ill consequences whatever, digesting thoroughly rotten meat as perfectly as does a healthy dog, and evidently suffering no inconvenience whatever from his septic diet.

The results of these experiments are not interpreted as demonstrating the inutility of the gastric juice as an antiseptic, but rather as demonstrating either that the bile or the intestinal fluids were possessed of greater antiseptic value than has been supposed, or that the liver, spleen, and perhaps other organs, are capable of destroying so great a quantity of ptomaines that the dog, at least, when temporarily fed on decomposed flesh, suffers no injury, even though deprived of the antiseptic influence of the gastric juice.

The Nature and Diagnostic Value of Tremors.*— A tremor may be defined as a to-and-fro vibratory movement. But the term vibration is also, by some, used in a more restricted sense to indicate the shaking of an arm or hand as a whole. The term oscillatory is used when the fingers alone are involved. A fibrillary tremor is one which involves only certain muscular fibres. To Mercier we are indebted for the best working hypothesis as to the nature of tremors.

Normally, all motor cells are constantly generating force, and as constantly being inhibited by the cells just above them. The accumulating force in the motor nerve cells, at very short intervals, overcomes the inhibitory force which is placed upon it, and discharges itself. These discharges occur so rapidly that they are merged into one motor impulse. Even while the individual is quiescent, a certain amount of motor force is required for the various muscles of his body, in order to maintain their action. Definite muscular movements are likely accomplished: First, by the removal of a certain amount of the normal inhibition. Second, by liberation of energy on the part of the related motor cells.

Now, if from exhaustion, disease, or any other cause, the accumulation of energy in the motor cells is only half as rapid as normal, then the interval between the discharges will also be twice as long, supposing the inhibitory force to be normal. In such a case, an appreciable tremor would result.

The theory is made very plain by the familiar example of the singing tea-kettle. The lid represents the inhibitory force. It is constant, unchangeable. The constantly generating steam represents the constantly generating nerve force. Now, when the steam is being generated very rapidly, the buzz of the lid makes an almost continuous noise; vibrations cannot be counted or separated; but when the steam is being generated more slowly, it takes a longer time to accumulate enough force to raise the lid, and instead of a continuous hum, there is a noise more like the ticking of a clock.

It follows, then, that tremors may be produced by any agency which will cause the motor cells to accumulate force less rapidly than normal, or which will increase the inhibitory force to be overcome (provided these agencies are sufficient in degree). This theory seems to be a plausible one to account for tremors, so far as it goes, but there are probably other causes of tremor in the cord or peripheral nervous apparatus, though of these we are ignorant.

Tremors may be of great diagnostic value at times, but, like the symptoms of paralysis and convulsions, they are always to be interpreted in the light of all other symptoms which may be present. The most useful division of tremors, from a practical standpoint, is into intention and constant tremors. Intention tremors occur only when a muscular movement is attempted, while a constant tremor is present whether the part be at rest or in motion, though movements may exaggerate it. Intention tremor almost always indicates insular (multiple cerebro-spinal) sclerosis, and is by far the most important symptom of that affection.

A constant tremor of itself never certainly indicates any one disease, but there are certain points which assist in diagnosis, *e. g.*, it may be fine or coarse; it may have existed a long time, or it may be temporary or recurrent; it may be confined to certain muscles or a certain number.

Unlike paralysis and convulsions, tremors have little or no localizing value. In considering them, I cannot do better than enumerate the various conditions in which they may be present, with the forms they assume in each. They are or may be present in:

Asthenia,	Tabes,
Alcoholism,	Paretic dementia,
Hysteria,	Paramyoclonus,
Mercurial poisoning,	Typhoid fever,
Post-hemiplegia,	Exopthalmic goitre,
Senility,	Writer's cramp,
Toxic conditions,	Paralysis agitans.

In almost all these affections, the presence of tremor signifies a great deal more than does its absence, for in all these affections, even in paralysis agitans, the tremor may be absent. Given a case of tremors, it should be ascertained whether it is coarse or fine; how long it has continued; what particular parts it is confined to; whether it increases upon motion or ceases when parts are at rest. Then, after the tremor itself is studied, all the other symptoms present must be considered in connection with it. Ordinarily, when a diagnosis is not made at once, it will be at least narrowed down to a very few of the conditions named. The characteristics of tremors in each of the conditions named, will be considered in order.

Asthenia.—The tremor is a fine one. It is brought out by fatigue; is apparent only upon motion.

Alcoholism.—It may be seen in the face, hands, tongue, and even the legs. It is irregular, occupies a wide range, and is generally apparent only upon movement.

Hysteria.—Tremor is a frequent symptom, especially in the major forms of hysteria. It may assume any of the various forms. It is apt to be brought out upon movements or excitement. Sometimes it simulates the true intention tremor very closely; seen in insular sclerosis. The tremor may be slow (four or five oscillations a second), or rapid (eight or ten oscillations a second). It may affect any part of the body. It is apt to occur in connection with paralysis or contracture.

Mercurial Poisoning.—In this affection the tremor is the most characteristic symptom; indeed it is often called the "trembles" or "mercurial tremor." It is apt to appear first in the face and tongue. At first it is seen only occasionally and then only upon movement. It may pass through various grades, from a fine inconsistent tremor up to a coarse tremor, resembling convulsive jerkings. Paralysis may appear late in mercurial poisoning, but is never an early symptom.

Hemiplegia.—Post hemiplegic tremor is not rare. It is not a rapid tremor (four to five oscillations per second), and is usually brought out by movements, but it has only a superficial resemblance to the intention tremor of insular sclerosis. It may, however, present a superficial resemblance to unilateral paralysis agitans, the number of oscillations being about the same. Hirt has commonly observed sensory changes in these cases.

Senility.—While senile tremor occurs usually in advanced old age, it may occur as early as forty. When it occurs early it may be very difficult to distinguish from the tremor of paralysis agitans, as both exhibit from four to six oscillations per second. Senile tremors begin on both sides, while those of paralysis agitans begin usually on one side. The senile tremor remains comparatively stationary or increases very slowly, while the tremor of

* Theodore W. Dillier, M. D., in the *Pittsburg Medical Review*.

paralysis agitans increases and progressively involves more parts, until the whole body is finally involved. In some cases it is, at least for a while, impossible to differentiate.

Toxic Conditions.—While it is not a prominent symptom, tremors may be present in chronic lead poisoning. The early appearance of paralysis and the history of the case will usually serve to distinguish it. A tremor is at times seen in opium, chloral and alcohol poisoning.

Locomotor Ataxia.—A tremor may be observed early in the disease or later. It has, however, little diagnostic importance in this affection, which is usually recognized by the more characteristic signs.

Paretic Dementia.—In general paralysis of the insane the tremor is of great diagnostic significance, inasmuch as it is one of the earliest symptoms and is very constantly present. It is noted first in the tongue and facial muscles. Twitching of the facial muscles may be seen while the patient is at rest, but are best observed when he is talking. The tremor usually involves the hands and arms, after the tongue and face, but it may occur quite early in the hands.

Paramyoclonus.—In the intervals between the clonic muscular spasms which characterize this affection, a tremor is sometimes observed.

Typhoid Fever.—A tremor is very common during the course of this disease; indeed it may be noted in all astenic febrile conditions. But it is of no especial importance in typhoid fever, inasmuch as it has been known to persist during and long after convalescence. According to Westphal, it occasionally merges into insular sclerosis.

Exophthalmic Goitre.—There is constantly seen in Basedow's disease, as one of the four cardinal symptoms (the other three being tachycardia, goitre and exophthalmus), a fine tremor (eight to nine per second).

Writer's Cramp.—Tremors may occur in the spasmodic form of telegrapher's cramp. Very rarely a coarse tremor constitutes the most prominent symptom.

Paralysis Agitans.—The tremor is a chief symptom. It is fine at first (five or six per second), but later becomes coarse (three to four per second). It is most prominent in the hands and fingers, and is constant, diminishing rather than increasing upon motion. Occasionally, however, cases are seen in which the tremor is slightly increased upon motion. The tremor may exist in one hand or foot for a long time before the other member becomes involved.

Of course, in this brief sketch of the subject, many points which might have been dwelt upon have been merely mentioned, while others have been omitted altogether. But I have endeavored at least to mention the salient features of tremors, as they manifest themselves in the various diseases.

The Bladder in Tabes Dorsalis.—J. Wagner, of Gratz (*Widn. Klin. Wock.*, Nov. 24, 1892), has found in patients suffering from tades dorsalis, and also in certain cases of dementia paralytica, a condition of the bladder in which it can be voided by compression, only, however, when the patellar reflex has subsided. If, in such cases of paralysis of the bladder, occurring in diseases of the spinal cord, pressure is exerted upon the abdomen in the region of the bladder, it is often possible to cause the urine to flow without its being necessary to use the catheter.

Sodium Salicylate in Headache.—In the February number of the *Practitioner* (*Drug. Circ.*) Lauder Brunton writes of headaches. In the course of his article he points out that one very common form of headache commences in this way: The patient sometimes feels a little unwonted irritability at night, but this irritability is not always present. It is very often the precursor of a headache. He wakes in the morning about four, five or six o'clock, with a feeling of weight in the head, but not a headache. He is very drowsy, disinclined to rise, and is apt to turn over and go to sleep again at once. If he does this he awakes again about seven or eight o'clock with a distinct, but not a severe headache, usually frontal or temporal. As the day goes on the headache becomes worse and worse, until in the afternoon or evening it becomes almost unbearable. It then finishes up with sickness, after which the patient becomes easier, but feels much exhausted. A headache of this sort may frequently be prevented, says the author, by the patient taking a mixture of potassium bromide and sodium salicylate over night, or by getting up and taking it when he awakes with a heaviness in the early morning, instead of turning over and going to sleep again.

The Extirpation of Aneurisms.—Dr. Joseph Ransohoff, of Cincinnati, contributed a short paper on the above subject to the American Medical Association, June, 1893. He concludes with the following propositions:

1. Extirpation is the ideal method. It should be resorted to unless there are weighty reasons against it.
2. In aneurisms of the forearm and legs no other method should be adopted.
3. Aneurisms which have suddenly grown large from subcutaneous rupture of the sac, and those in which rupture is pending, should be subjected to extirpation.
4. In recent traumatic aneurisms the injured vessel should be divided between ligatures; when sac has formed it should be excised.
5. When other methods have failed extirpation should be tried before resort is taken to amputation.
6. In arterio-venous aneurisms extirpation should be practiced, if any operation is indicated.
7. Proximal ligation is to be reserved for cases of idiopathic or spontaneous aneurisms, in which the age of the patient or an enfeebled condition from other causes would make a prolonged operation hazardous, and for cases in which the position of the tumor precludes the possibility of extirpation.

Heart Failure.—Loomis (*Internat. Med. Mag.*) divides all cases of heart failure into three classes: (1) Those in which the heart has for a long time been called upon to perform an abnormal amount of work, as in valvular or arterial disease. (2) Those in which obstructive changes in the coronary arteries markedly diminish the nutritive supply of the cardiac muscles. (3) Those in which toxic influences act directly upon the nutrition of the cardiac muscles, or so interfere with the cardiac nerve supply as to lessen cardiac resistance. The cases in the first class are the most numerous and easily recognized. The other organs than the heart should be carefully examined for morbid changes, and the resisting power of the heart carefully estimated. In this manner a fatal heart syncope may often be prevented by limiting the amount of heart strain. The second class of cases, fibroid disease of the heart, may be recognized by a rapid, feeble and irregular pulse, a diffuse, feeble cardiac impulse, weak but sharp heart sounds, the first closely resembling the second in tone and duration. Advanced cases have precordial anguish, with a tendency to syncope. Digitalis and other heart tonics fail to restore the rhythm and often make it worse. In these cases the danger of sudden cardiac failure is so great that all acute diseases become dangerous, and severe heart-strain is contra-indicated. In cases of toxic infection, signs of heart weakness should be watched for, and alcohol, strychnine and other heart tonics administered early, in order to ward off, if possible, a fatal syncope.

OBITUARY.

MR. A. J. TAFEL, senior partner of the pharmacutical and publishing house of Boericke & Tafel, died March 9th, at the age of sixty-seven years. Mr. Tafel served in the Army of the Potomac during the civil war, shortly after which he formed a partnership with his brother-in-law, Mr. Boericke, in the pharmacutical and publishing business, which has grown to immense proportions. Both of the founders of the firm have passed away, the business now being conducted by their sons, Dr. F. H. Boericke and A. L. Tafel. No change of policy will be made in conducting the business, which since its organization has been conducted with such energy, honesty and correct business judgment as to secure for it marked success.

MISCELLANY.

—Bacteria are so small that it takes 100,000 of them placed lengthwise to measure an inch.

—The highest mortality in European cities per 1,000 for August is St. Petersburg, 62; and the lowest Swansea, 10.

—The prognosis in cases of alopecia due to syphilis, Prof. Horwitz says, is good, unless ulceration of the scalp sets in.

—An enterprising female farmer utilized the high temperature of her bed-ridden phthisical husband for egg incubation.

—The trustees of Harvard College have forbidden the use of rum, brandy or claret at the reunions of classes or college commencements.

—John Crerar, of Chicago, has given $26,000 to the Presbyterian Hospital and the same amount to St. Luke's Hospital, both of this city.

—Aerated milk, *i. e.*, milk charged with carbonic acid, is being highly recommended by Prof. Botkin and other Russian physicians as a substitute for kumyss.

—Edinburgh has risen in the last two decades to be the foremost medical school for undergraduates in the civilized world, not excepting Paris, Vienna or London.

—One of the morning papers in this city gave a most interesting account of an amputation that was performed recently "half way between the knee and the thigh."

—A young man in Jeffersonville, Ind., has lost the sight of both eyes by the explosion of a pneumatic tire of his bicycle. He was inflating the tube when it exploded.

—Jose de Laveaga, the Santa Cruz, Cal., millionaire, has bequeathed $600,000 for the founding of an asylum for the blind, deaf, dumb, paralytic and aged of both sexes.

—Dr. Daniel Martine, of St. Joseph, Mo. (*Clinique*), says that fissura in ano is common in infants, and usually escapes notice, as the symptoms generally point to the bladder.

—Dr. W. S. Lumpkin, of Atlanta, Ga., sued that city for $10,000 damages, alleging that the injurious fumes from an open sewer had ruined his health. The jury found in his favor to the extent of $400.

—That gonorrhœa can be acquired late in life is shown by Dr. G. E. Isaacs, of this city, who reports a case in the *Medical Record*, April 14, 1894, occurring in a man aged one hundred and three years. When one hundred years old he contracted chancroids!

—The Massachusetts General Hospital will build a model steam laundry to cost $10,000. There will be a sterilizing room, where clothing are sterilized by steam under pressure, and the soft soap used will be made from the kitchen grease of the hospital.

—A recent police court trial in this city developed the fact that trade in bogus medical diplomas is not entirely extinct. An ambitious young man paid $100 for a diploma, and, as it was not forthcoming, he made a charge of larceny against the receiver of his cash.

—Guttmann proposes the erection of convenient stations for the thorough disinfection of physicians after they have visited an infectious case. The operation will take about fifteen minutes, when the doctor can go about his work, certain that he cannot carry disease to his fellows.

—Harvard College has appointed a physician to look after the general health of its students. He is expected not necessarily to treat them when they are sick, but to so direct their lives that they will not get sick. The physician selected is Dr. George W. Fitz, instructor in physiology and hygiene in the Lawrence Scientific School.

—Prof. Victor C. Vaughan is reported as having discovered that nuclein, a normal constituent of the serum of the blood, possesses powerful germicidal properties, and that to it is probably due the immunity we usually possess toward disease. It has been suggested that to increase the quantity in the blood might prove a means of warding off or checking disease.

—Finney (*Johns Hopkins' Bulletin*) sutured in place the ends of the ring and middle fingers seven hours after they had been cut off by a machine. Firm union took place after two weeks. When seen, at the end of three years, motion and sensation were complete. Antiseptics were avoided, because they form a layer of coagulation-necrosis which might interfere with union.

—A Paris court held that in estimating the fees demanded by physicians, not only the pecuniary condition of the patient is to be considered, but also the reputation which the physician may have acquired by his works and discoveries. The medical standing of the physician and the financial condition of the patient are two important factors in doctor bills in the eyes of the law.

—Only 906 persons in a million die from senility, while 1,200 succumb to gout, 18,400 to measles, 27,000 to apoplexy, 7,000 to erysipelas, 7,500 to consumption, 48,000 to scarlet fever, 25,000 to whooping cough, 30,000 to typhoid and typhus, and 7,000 to rheumatism. The averages vary according to locality, but these are deemed pretty accurate as regards the whole population of the globe.

—Dr. Burt G. Wilder believes it to be the province of the medical man "to improve the human body in the direction of the elimination of that death-trap—the appendix vermiformis." Four years ago he suggested that we should not only have children vaccinated, but should have them "de-appendicized." The only mammals near ourselves which were cursed with an appendix were the four anthropoid, tailless apes.

—The poison of influenza has been discovered. The ptomaine extracted from the urine in cases of influenza is a white substance, crystallizing in prismatic needles, soluble in water, and of a slightly alkaline reaction. It forms a hydrochlorate, a chloroplatinate, and a chloroaurate—all crystalline. It is poisonous, inducing a strong fever and death in eight hours. It is not met with in normal urine.

—A recent number of *Ueber Land und Meer* contains an account, with portrait, of a year and three-quarters old child—the son of a butcher in the City of Brunswick—who can read smoothly and correctly print and script, both German and Latin, as well as numbers of two places of figures. Examination by several doctors established the fact that, except for "an extraordinarily developed visual memory," the boy was on a par with others of his own age.

—The Oriental Life Insurance Co. is the principal insurer of native life in India, and, according to the evidence given by the management to the Parliamentary Commission appointed to inquire into the opium question, opium users are charged no extra premium; and this estimate of the risk is confirmed by the fact that, for twenty years past, not a single claim has been paid or made for a death which could be directly attributed to the use of the drug.

—In a large factory in Schenectady, N. Y., employing 2,000 hands, much inconvenience was felt, independent of season, from prevalence of diarrhœal diseases amongst workmen, sometimes to the extent of ten per cent. of the employes. The company substituted distilled water for that from the river Mohawk, allowing no other in the works. The improvement in the health of the hands was so marked that arrangements are being made to supply the families of the operatives as well, and another firm is about to adopt the same practice.

—The method of dealing with secret remedies in Germany appears to be simple and efficient, as the following instance shows: Not many months ago some strangers took a house in Berlin, and with great *éclat* gave out that they were prepared to sell a remedy for freckles and pimples at $1.25 a bottle. The day after the opening of the establishment an official notice appeared in the Berlin daily papers under the heading "police intelligence," giving the result of the analysis of the drug (it was a weak solution of corrosive sublimate) and the cost of its preparation, namely, three cents. The establishment was soon closed.